Community Wildfire Planning



Guidance Document



North Dakota Forest Service 1511 East Interstate Avenue Bismarck, ND 58503

INTRODUCTION:

Why is it important that North Dakota communities plan for wildfire?

North Dakota averages over 600 wildfires with over 11,000 acres burned every year. During drought years, these numbers can be considerably higher. In 2002, the loss of the community of Shields to a wildfire revealed the need for North Dakota communities to be better prepared for disasters which strike wildland urban interface areas – zones where structures and other development meet or intermix with wildland trees, shrubs, and grasses.

If wildfire threatened your community, how would it respond? If firefighters couldn't contain the fire, what structures might be lost? How would families and businesses recover? How would the local economy be affected? What measures need to be taken to keep citizens and firefighters safe?



Through proper planning, a community can reduce its risk from and increase its ability to respond to wildfire. It is the community and its stakeholders who are best at assessing their current condition and finding solutions that work - no other entity can accomplish local planning for a community. While counties have general mitigation and response plans, these plans generally do not address the wildfire planning concerns of

specific communities.

Losing an entire community to wildfire reminds us that North Dakota communities need to be prepared. This is especially true when wildfire threatens the places where our populated areas and wildland areas, such as grasslands, meet. Through wildfire planning, communities can proactively mitigate and respond to wildfires.

The North Dakota Forest Service is one of the stakeholders that can assist communities with wildfire planning. This document has been prepared by the ND Forest Service to assist communities with wildfire planning as part of comprehensive strategic planning initiatives. It can also be used by communities as a stand-alone guide to address wildfire mitigation and response issues. The North Dakota Forest Service can provide technical support to communities, including training, meeting facilitation, and plan review to make planning efforts successful.

The planning process

The planning process outlined in this document recommends six steps to create a comprehensive, workable wildfire plan. By following these steps, communities should be able to: achieve wide stakeholder involvement, assess vulnerabilities to the community's current resources and infrastructure, identify areas that need improvement, and implement an emergency response and hazard mitigation plan.

Step 1 - Identify Stakeholders	Page 2
Step 2 - Describe the Community	Page 3
Step 3 - Infrastructure Assessment	Page 4
Step 4- Wildfire Mitigation	Page 6
Step 5 - Wildfire Response	Page 7
Step 6 - Maps	Page 8
Additional Resources	Page 9



STEP 1 - IDENTIFY STAKEHOLDERS

The safety of the citizens of any community is a shared responsibility between the citizens, and the local, county, state and federal governments. The ultimate effectiveness of a wildfire plan in making significant changes in a community depends on the support of the people who live and work there, as well as those from surrounding areas and from agencies that have an interest in wildfire planning. When a broad range of appropriate stakeholders are involved in the planning process, the plan is more likely to address all of the relevant issues and gain greater acceptance from the community. A governmental entity or a commission appointed by a governmental entity should take the lead in the planning process since the local government is the only entity legally able to make decisions on public safety, public spending and so forth.

Examples of possible stakeholders to involve in fire planning efforts:

Government:	Private:	Civic:
City Mayor, Council, &	Bankers	Arts/Humanities Groups
Commission	Developers	Chamber of Commerce
City Department Heads	Hospitality Industry	Representatives
County Commission	Business Owners	Clergy
County Emergency Manager	Farmers and Ranchers	Community Clubs
Police Department	Hospitals or clinics	Community Non-Profits
Fire Department (city and rural)	Industrial Firms	Local Development Corporations
Emergency Medical Personnel	Insurance Agencies	Professional Associations
Extension Agent	Major Employers	Senior Citizens
Forest Service (state/federal)	Newspaper/Media	Service Organizations
Game and Fish Official	Realtors	Youth Groups
Highway District Manager	Attorneys	Regional Planning Councils
Health District	Retail Business Owners	Community Action Agencies
Planning and Zoning Commission	Service Sector Firms	Low Income Groups
Resource Conservation and	Small Business Owners	Minority Groups
Development Coordinator	Transportation Businesses	Builders Association
Other Federal Land Management	Utility Representatives	Community Housing Development
Agencies		Organizations

STEP 2 – DESCRIBE THE COMMUNITY

The community description identifies the area the wildfire plan will affect, as well as resources that can be used to achieve the goals of the plan. It also provides an opportunity to list assets and resources that may be threatened by a wildfire. Much of the information below may be available by reviewing the county's "County Hazard Mitigation Plan." *The community should work with the County Emergency Manager to obtain this information and to coordinate planning efforts.*

1. Planning Committee Members List

List the names, affiliations and phone numbers of the planning committee members.

2. Population

Provide information regarding the population of the area covered by this plan,

both rural and municipal. The area the plan will affect should correspond to the fire protection districts that surround the community.

3. Estimated Property Values at Risk

Provide an approximation of the estimated current values of residential and commercial property covered by the plan (the county assessor should be able to assist with this information). List the number of structures affected.

4. Economic Values at Risk

Describe how the loss of businesses and homes would affect the local economy (tourism, lost pasture land, out-migration)

5. Natural Resources at Risk

Describe the natural resources at risk in the surrounding area, such as parks, lakes, rivers, conservation areas, and wildlife refuges.

6. Historical Structures and Sites at Risk

List any historical structures and/or culturally significant sites.

7. Commercial Entities

List the contact information, location, and potential need for wildfire risk assessment for commercial entities.

8. Formal Associations

List the contact information for civic groups, churches, volunteer organizations, and so forth.

9. Media Support

List the contact information for local media, such as newspapers, television and radio.

10. Schools

List the contact information for all public and private schools.

11. Transportation

List the contact information for any railroad, highway, or other public transportation.

12. Restrictive Covenants, Ordinances, etc.

Describe any pertinent restrictive covenants, ordinances, or other regulations that concern or impact wildfire. For example, list any regulations regarding building construction materials, burning permits, vegetation removal, tree trimming requirements and so forth.



STEP 3 – INFRASTRUCTURE ASSESSMENT

An infrastructure assessment evaluates conditions that may improve or hamper emergency response during a wildfire. The community should work with the municipal and rural road superintendents and utility companies to complete this section.

A. Access/Community Location

Provide detailed information about emergency access in the community. This allows emergency responders from other counties, or state or federal entities that are unfamiliar with the area to easily locate the community in the event of a catastrophic wildfire. Include latitude and longitude coordinates and maps if possible.

B. Roads

Provide information regarding the condition and types of roads. Will roads and bridges be able to handle heavy emergency response equipment? Can emergency response equipment easily enter and exit residential areas? Can mutual aid agencies find roads easily?

Reviewing and mapping the following items may be useful when assessing infrastructure:

- Presence of road signs.
- Presence of paved, gravel, and dirt roads.
- Number of roads that will support (#) ____ lanes of traffic.
- Presence of loop roads.
- Presence of dead-end roads. Review turnaround space available at the end of the road for emergency equipment.

Since roads can provide places from which to fight wildfires, identifying these resources prior to a wildfire is crucial information for emergency response personnel.

C. Driveways

Provide a general assessment of the driveways with regard to emergency equipment access. Are width and height clearance and road grades adequate for emergency equipment? Do individual homeowners have their name and address posted in visible locations?

D. Structures

Assess the vulnerability of structures to ignition.

Research shows that if a wildland fire ignites a building within a community, it is often that burning structure rather than the wildfire itself which will ignite other structures. For this reason, it is important to understand how a wildfire would likely enter the community, which structures are most vulnerable, and how they could cause further damage in the community.

Reviewing the following may be useful when assessing the vulnerability of structures:

- Use of defensible space around buildings
- Wood-frame construction
- Type of siding used
- Wood decks or porches
- Wood shake or shingle roofs
- Visibility from the main road
- Abandoned or unmaintained buildings in vulnerable areas
- Prevailing wind direction (buildings on certain sides of town may be more vulnerable)

Community assessments can be scheduled by contacting the ND Forest Service.

E. Bridges and Culverts

Assess infrastructure for potential obstacles to emergency response. Consider weight, height, and width of emergency vehicles. Can bridges support emergency equipment? Are culverts easily crossed by emergency equipment? Identify alternative routes.

F. Utilities

Assess and provide information on the utilities serving the community.

Damaged utilities, such as downed electrical lines or propane tanks, present hazards to the public and emergency response personnel. They can hamper communications during a disaster and create health and safety issues. Note areas where utilities may be at a higher risk for damage during a wildfire.

1) Telephone service is (below / above) ground.

Provided by: _____ Telephone #: _____

2) Electrical service is (below / above / both) ground.

Provided by: _____ Telephone #: _____

3) Are there homes or structures utilizing propane?

If some <u>are</u> above ground, are they marked with a flag or by other highly visible means?

List & map locations of propane tanks above ground

- 4) Are there homes or structures utilizing natural gas?
- 5) Note primary water sources such as: central water systems, individual wells, or additional private water sources.

Water provided by: _____ Telephone #: _____

G. Wildfire Risk

Assess the community's fire risk, including its fire history, the presence of hazardous fuels in the area, and related issues.

As described in Section D, a community's risk from wildfire is related to the vulnerability of the structures within it. Wildfire risk, though, also consists of other factors, such as the amount of flammable fuels around the community. An increased wildfire risk may be found in areas containing an accumulation of trees, shrubs and grasses, or where there are mature CRP fields. National grasslands and wildlife refuges may also contain high fuel loads. During drought conditions, these areas can contribute to more extreme wildfire behavior. Analyzing the fuels will help identify areas where mitigation actions can reduce fuels, where fire breaks are needed, or where the community should work together with land owners to reduce risks.

Another factor affecting a community's wildfire risk is the historic occurrence and cause of wildfires. After analyzing these factors, a community it may find, for example, that most wildfires occur in April and October, and most are caused by agricultural or trash burning. The community may decide that implementing a wildfire awareness campaign during those months could lessen the risk from wildfire.

Factors to consider include:

- 1) Area Fire History
 - a. Month/Year of Fire
- d. Acres burned
 - e. Prevailing wind direction
- b. Ignition pointc. Ignition source

- 2) Presence of hazardous fuel sources identify places where fuel loads are high, such as forested areas, mature CRP fields, or large grasslands
- 3) Describe how natural resources within the community are managed or could be managed to reduce fire risk
- 4) Describe any regulations affecting burning in the community

STEP 4 - WILDFIRE MITIGATION

After assessing the condition of the community's infrastructure (A through G in Step 3) and its vulnerability to wildfires, the community now needs to determine how it will address those issues and reduce its vulnerability. This part of the plan is the hazard mitigation section, and it states the goals of the community, identifies specific actions needed to meet these goals, identifies timelines for achieving the goals, and lists responsible parties, resources and priorities.

A. Goals

Provide a brief statement of the goals of the Community Wildfire Plan.

Goals should address the following:

- Fuel Reduction/Modification
- Facilities and Equipment
- Infrastructure Improvements (Utilities, Water Developments, Equipment Acquisition/Repair)
- Wildfire Prevention Education/Awareness (Firewise programs)

EXAMPLES OF POSSIBLE GOALS

- 1. Decrease fuels to reduce wildfire intensity and impact in and around the community and maintain those areas in a Firewise condition.*
- 2. Educate community members to prevent, prepare for and respond to wildfire.
- 3. Actively address identified regulatory issues impacting community wildfire prevention and response needs.
- 4. Regularly evaluate, update and maintain planning commitments.
- 5. Achieve Firewise Communities/USA status as part of wildfire preparation efforts.*

* Firewise is a program that encourages certain building, landscaping and maintenance practices to reduce vulnerability to wildfire. Firewise Communities USA is a national recognition program that promotes Firewise practices. Smaller communities can receive a wildland/urban interface (WUI) assessment from a WUI assessor, and fulfill requirements for recognition status through wildfire planning and activities. See page 10 for more information.

B. Actions

Describe projects needed to complete the goals of the plan.

EXAMPLES OF POSSIBLE ACTIONS

Fuel modification projects will be implemented through:

- 1. Educational campaigns utilizing informational meetings, brochures, Firewise workshops, and a community assessment by a fire expert.
- 2. Group services, such as hauling, cutting, chipping, and roofing.
- 3. School and youth community service projects.
- 4. Fuel break development and establishment with the assistance of state/federal fire experts.
- 5. Community roadside cutting, spraying, and reseeding projects.

C. Identification of Responsible Parties, Resources and Priorities

Outline how the action items will be accomplished by listing responsible parties (person who is responsible for each action), resources (assets needed to complete actions), and priorities (designating each action as high, medium or low priority). Include a timeframe for completing the goal/action item.

D. Monitoring and Evaluation

Describe how this plan will be monitored and evaluated over the next 5 years. How will the document remain a living document? Who will make sure the information is current and correct?

STEP 5- WILDFIRE RESPONSE



After assessing the community's vulnerability to wildfire and planning how to address mitigation issues, the next step is to determine how the community will respond to a wildfire. This part of the plan creates the community's emergency response structure. It lists emergency support equipment and identifies what the emergency support units require to safely and efficiently respond to a wildfire.

Each county should also have a response plan in place. The community plan should take the county plan into consideration and whenever possible, community and county plans should complement each other and there should be no conflict between the two plans

The community should work with fire departments, law enforcement, emergency medical services and the County Emergency Manager to complete this section.

A. Emergency Services Equipment

Describe and list the types of emergency services and equipment available from private, local, county, state, and federal resources. Include contact information.

B. Wildfire Preparation Plan

Communities should have a wildfire "Preparation Plan" in the event a wildfire exceeds local fire department capability.

If, during a wildfire incident, the local fire department determines that the fire is going to exceed their capacity to control it safely and efficiently, they will call on their mutual aid partners for support. The department must also have a mechanism in place to contact the county emergency manager if the fire exceeds the capacity of mutual aid. The county emergency manager will contact the ND Division of Emergency Management if additional resources are required.

Working with emergency response personnel, the community should determine what steps to take if a wildfire exceeds local suppression efforts. Addressing the following issues in a response plan may save time, money, property and lives:

- 1) Emergency notification procedures
- 2) Briefing template for incoming personnel on safety and hazards (*Templates are available from the NDFS, and include information on jurisdiction, incident location, fire size and behavior, weather, fuels, topography, hazards and assets at risk*)
- 3) How local fire departments will coordinate their efforts
- 4) Fire protection responsibilities and response times for private, state and federal agencies
- 5) Factors in determining evacuation vs. shelter-in-place
- 6) How to accomplish evacuations
- 7) Traffic control for evacuations and incident management

- 8) If an Incident Command System is put in place by authorities, who in the community will be a liaison?
- 9) Pre-determined locations for:
 - a. Incident Command Post
 - b. Staging Areas
 - c. Fire Camps

C. Early Warning Systems

Are early warning systems (sirens, radio/TV broadcasts) in place in the community?

D. Water Sources

Map areas where water may be obtained during a wildfire. Areas include: ponds, hydrants, dry hydrants, cisterns, water tanks, swimming pools or other water storage areas.

E. Training Needs and Equipment

Work with the rural fire department to assess the current and needed equipment and training to respond to a wildfire event.

As in Step 4, list the response plan's goals, actions, responsible parties, resources and priorities, and how monitoring and evaluation will be accomplished.

STEP 6 – MAPS

Maps are a critical part of a wildfire plan. They identify areas that contain hazardous fuels.

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infrastructure that will not support emergency vehicles, evacuation routes and so forth. They also provide emergency response personnel with crucial information needed during an incident, such as the exact location of transportation routes and critical facilities. Copies of maps should be included in an appendix of the plan as well as made available to all local emergency personnel and to any additional resources that may be called upon during a wildfire event.

CONCLUSION:

The key to successful wildfire planning is extensive participation from a wide variety of community representatives. With broad stakeholder support, a wildfire plan represents the dedication of individuals proactively protecting their community. Through proper planning, communities can take action now to mitigate or prevent the destructive effects of a wildfire, as well as be prepared to properly respond to a wildfire.

The North Dakota Forest Service is dedicated to helping communities create successful wildfire plans. Our trained staff can assist communities with all aspects of the planning process and can schedule on-site assistance when requested. Through grants, we can also assist with the implementation of these plans. If your community is interested in community fire planning or has any questions regarding this document, please contact the North Dakota Forest Service at 701-328-9944.

ADDITIONAL WILDFIRE PLANNING RESOURCES

INTERNET SITES:

Catalog of Federal Domestic Assistance - www.cfda.gov Division of Community Services (Strategic Planning Manual) - www.state.nd.us/dcs/comdev/planning.html Economic and Rural Development Resources - www.nal.usda.gov/ric/ruralres/economic.htm Firewise – www.firewise.org Firewise Communities USA – www.firewise.org/usa National Fire Plan - www.fireplan.gov/index.cfm National Fire Weather - http://fire.boi.noaa.gov/ National Interagency Coordination Center - www.nifc.gov/information.html State Data Center - www.ndsu.nodak.edu/sdc/

PUBLICATIONS:

The following free wildfire brochures are available by calling the ND Forest Service at 701-328-9944:

- North Dakota Rural Fire Danger Index
- Protect Your Property 10 Steps to Being Firewise in North Dakota
- How to Reduce Wildfire Risk (National Arbor Day Foundation publication)
- Vegetative Firebreaks
- Wildfire Are You Prepared? (FEMA/USFA publication)
- Wildfire Home or Farm Hazard Rating
- Living with Wildland Fire on the Prairie (USFWS publication)
- Protecting Your Property From Wildfire

FUNDING SOURCES & TECHNICAL ASSISTANCE

BuildingsGrants for Community Facilities (CF)Grants to construct, enlarge, extend, or otherwise improve essential
community facilities (population less than 25,000).

<u>USDA Rural Development</u> PO Box 1737, Bismarck ND 58602-1737 Phone: (701) 250-4773, 1-800-582-7584, Ext 6 www.rurdev.usda.gov/nd

Economic Action Economic Action Program & Economic Action Pilot Projects

Grants to develop markets for small diameter and other under-utilized wood products resulting from hazardous fuels reduction.

<u>ND Forest Service</u> 1511 East Interstate Avenue, Bismarck ND 58503 Phone: (701) 328-9944 www.ndsu.nodak.edu/forestservice

Rural Community Assistance

RCA provides technical and financial assistance to natural resource dependent communities to develop and implement strategic community action plans that result in long-term social, environmental, and economic sustainability. Local action teams lead the process to identify problems and opportunities, set goals and identify priorities. Grant funds may also be used to implement priority projects identified in the planning process. The community must have a population under 10,000 and be within 100 miles of National Forest System Lands.

<u>US Forest Service - Dakota Prairies Grasslands Unit</u> 240 West Century Ave, Bismarck, ND 58503 Phone: (701) 250-4443 www.fs.fed.us/r1/dakotaprairie

Education

Firewise Workshops

Workshops targeted to homeowners to promote wildfire awareness, mitigation activities for protection of property, prevention and safety.

Smokey Bear

Smokey Bear is available for personal appearances to promote wildfire awareness among school aged students and the general public.

Firewise Communities USA

A national recognition program for communities that implement Firewise practices within their areas. Smaller communities can receive a wildland/urban interface (WUI) assessment from a WUI assessor, and fulfill requirements for recognition status through wildfire planning and activities. www.firewise.org/usa

<u>ND Forest Service</u> 1511 East Interstate Avenue, Bismarck ND 58503 Phone: (701) 328-9944 www.ndsu.nodak.edu/forestservice

Equipment Volunteer Fire Assistance Grants to assist in organizing, training, and equipping rural fire departments.

Rural Fire Assistance

Grants to assist rural fire departments with wildland fire suppression, training, and prevention efforts.

GSA Ordering

Provides fire districts with the opportunity to purchase wildland firefighting equipment at reduced costs.

Federal Excess Personal Property Program

Provides federal excess equipment to rural fire departments. The fire departments then renovate and recondition the equipment for firefighting purposes.

<u>ND Forest Service</u> 1511 East Interstate Avenue, Bismarck ND 58503 Phone: (701) 328-9944 www.ndsu.nodak.edu/forestservice

Individual Landowners Various grant opportunities are available from the ND Forest Service to assist landowners with the installation of management practices that mitigate or rehabilitate areas affected by wildfire. These grant opportunities vary from year to year. Contact the NDFS for further information.

Multi-Resource Stewardship (MRS)

Grants to non-industrial private landowners to install best management practices to rehabilitate lands adversely affected by the 2000 fire season, or to enhance wildfire protection within properties that fall within management zones for the wildland-urban interface.

Forest Land Enhancement Program (FLEP)

Grants to reduce the risk from wildfire and other catastrophic natural events on non-industrial private land. These practices can be applied to forest land with existing tree cover and rural lands suitable for growing trees.

Rural Development Fuels Reduction

Grants to implement fire management practices to reduce the threat of wildfires to non-industrial private landowners – including the installation of windbreaks and woodland management practices that provide defensible space around homes and other buildings. To qualify for this grant, the property must be located within 10 miles of federally owned land.

<u>ND Forest Service</u> 1511 East Interstate Avenue, Bismarck ND 58503 Phone: (701) 328-9944 www.ndsu.nodak.edu/forestservice

Planning Community Fire Planning Grant

Grants for the development and/or revision of community strategic, action, and fire risk management plans. Monies can be used to support items such as Firewise workshops, media fire prevention campaigns, and for development of the plan itself.

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Pre-disaster Mitigation

Technical support to local governments to develop a long-term strategy for operational and mitigation planning. Preparedness, response, recovery, and mitigation activities are included in the planning process.

ND Division of Emergency Management PO Box 5511, Bismarck, ND 58506 Phone: (701) 328-8100 www.state.nd.us/dem

Strategic Planning

Technical assistance, training, and resources are available for the formation of community strategic plans.

ND Division of Community Services PO Box 2057, Bismarck, ND 58502-2057 Phone: (701) 328-5300 www.state.nd.us/dcs

Mitigation Firewise Landscaping

Grants to communities to incorporate Firewise concepts into planned or existing tree plantings and shelterbelts. The land covered by the grant must be owned or controlled by the community. Firewise concepts include providing 30 feet of defensible space around structures and having zones of short grasses and bare soil around tree plantings or shelterbelts.

Wildfire Hazard Mitigation

Grants to assist communities in mitigating risks from wildland fire in the wildland-urban interface. Hazard mitigation, fuels reduction, wildfire awareness and prevention, and community and homeowner action are emphasized to help communities find long-term solutions to managing wildland fire hazards.

Rangeland Fire Danger Index Sign Program

Grant funds are available for purchasing and installing Rural Fire Danger Index (RFDI) Signs for Rural Fire Departments and Districts.

<u>ND Forest Service</u> 1511 East Interstate Avenue, Bismarck ND 58503 Phone: (701) 328-9944 www.ndsu.nodak.edu/forestservice

Training Advanced Wildland Fire Training Scholarships

Grant funds provide scholarships to Rural Fire Department personnel who attend advanced NWCG-sanctioned wildland fire training opportunities.

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Community Emergency Response Teams (CERT)

Technical assistance and training provided to communities to strengthen their capacity to respond to any emergency or threats from terrorism, crime, public health issues and disasters of all kinds.

ND League of Cities 410 E Front Avenue, Bismarck, ND 58504-5641 Phone: (701) 223-3518 www.ndlc.org Vehicles

Assistance to Firefighters Grant Program

Grants to fire departments to enhance their abilities with respect to fire and firerelated hazards. Eligible activities include: training, wellness and fitness, firefighting equipment, personal protective equipment, modifications to fire stations and facilities, fire code enforcement activities, fire inspector certifications, wildland mitigation, and equipment such as pumpers, brush trucks, tankers, rescue, ambulances, quints, aerials, foam units, and fireboats.

Federal Emergency Management Agency (FEMA)/United States Fire

Administration (USFA) Information and grant application available at: www.usfa.fema.gov

Federal Excess Personal Property Program

The ND Forest Service obtains excess federal vehicles for rural fire departments. The fire departments renovate and recondition the vehicles for firefighting purposes.

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