

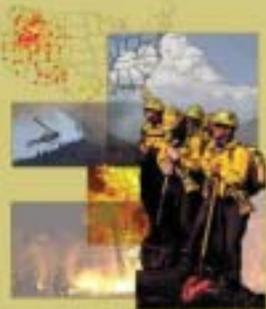
Spearfish, South Dakota, and the Northern Black Hills

Steps to Improve Community Preparedness for Wildfire

Community Preparedness Case Study Series

Case Study #5

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In 1876, settlers, in search of gold, founded the city of Spearfish, South Dakota. With 13,000 residents, it is now the second largest city in western South Dakota. The town skirts the Black Hills National Forest, whose rolling hills, canyons, and streams make it a popular biking, fishing, and hiking retreat for both residents and tourists. People also flock to the area to attend the popular annual Sturgis Motorcycle Rally and to visit Mt. Rushmore National Memorial and Badlands National Park.



Wildfire has played a critical role in shaping the landscape of the northern Black Hills. Historically, frequent, low-intensity surface fires maintained an open ponderosa pine ecosystem. Today, after years of fire suppression, this open savanna has grown into a dense forest, resulting in high fuel loads for forest fire. In recent years, drought and disturbance by the mountain pine beetle have plagued the area, further increasing fuel loads. The northern Black Hills experiences numerous wildfires each year. In fact, in the past 3 years, one-tenth of the Black Hills National Forest has burned, bringing wildfire to the attention of the community's citizens and to the forefront of natural resource management issues for the area's land management agencies. The Lawrence County Volunteer Fire Departments (VFDs), the USDA Forest Service, the Bureau of Land Management (BLM), the U.S. Fish and Wildlife Service (USFWS), and the South Dakota Division of Resource Conservation and Forestry and Division of Wildland Fire Suppression all play a role in combating fire and in working together toward wildfire preparedness.

Keys to wildfire preparedness in Spearfish

Know your place

Many of the residents in Spearfish have grown up in or near the area, and they feel a special connection to the Black Hills. They understand the role of wildfire in maintaining forest health, and many have experienced wildfire in their lifetimes. This cultural awareness enables them to take an active role in fire preparedness by volunteering, serving on committees and task forces, talking to neighbors and new residents, and setting examples on their own property by clearing brush and thinning trees.

Educate the public

Education was identified by Spearfish residents as one of the most important tools in wildfire preparedness. Many concerned leaders and county residents attended a workshop hosted by FIREWISE in Spearfish. The Spearfish VFD holds an open house every year, where residents tour the department, learn about firefighting



equipment and get the latest information about wildfire issues. The Lawrence County Fire Advisory Board and VFDs talk to local clubs and schools. Brochures on subjects ranging from prevention to preparedness have been distributed to the area's residents. The media, such as the Rapid City Journal, also play an important role in educating the public, especially during the fire season.

Model preparedness

Many residential subdivisions sit adjacent to the Black Hills National Forest and other public lands. Some agencies provide examples for these residents by practicing wildfire preparedness principles on their own property. For example, the USFWS initiated a thinning project at the DC Booth Fish Hatchery and posted informative signs about thinning and wildfire throughout the project area. Fuel reduction projects have also taken place in city parks throughout the county and on BLM and USDA Forest Service land. The South Dakota Division of Wildfire Suppression has established prescribed burning demonstration sites.



Provide incentives for fuel reduction

Fuel reduction measures, such as tree thinning, can be expensive. Cost share programs can help alleviate these costs and provide incentives to property owners to create defensible space around homes. The State initiated a 50-50 cost share program for fuel reduction projects on private property. The USDA Forest Service has agreed to create a 100-foot fuel break on public land adjacent to houses whose landowners have sufficiently thinned fuel loads to provide defensible space.

Form a coordinating advisory board

The Lawrence County Fire Advisory Board draws on the knowledge and skills of local residents. Its members consist of representatives from land management agencies and county VFDs. The board meets once a month and serves as a communication platform for these different groups. Its main priority is education, and members spend a significant amount of time talking to schools, clubs, and other organizations. They recently formed a task force to develop a wildland-urban interface (WUI) ordinance that establishes guidelines for defensible space, road access, water supply, and other factors related to wildfire. If adopted by the county, this ordinance would be codified in the county's planning and zoning regulations. The board also received grant money to hire a GIS Specialist to map all existing structures in Lawrence County, potential fuel breaks, and other variables whose geography plays an important role in preparing for wildfire.

Build on interagency relationships

In an area represented by several different agencies, cooperation is critical in addressing emergencies such as forest fire in a quick and effective manner. Land management agencies in the Black Hills have a long history of working together and with local VFDs. They meet regularly, attend training together, share/lend equipment, and often work side-by-side during forest fires. They are currently working on a centralized dispatch to facilitate communication in the event of forest fire.



What's Next for Spearfish?

People we talked to in Spearfish suggested several activities that would help residents maintain or improve wildfire preparedness.

Move ahead on wildfire education

Because of the past few fire seasons in Spearfish, fire remains on the minds of Spearfish residents. The FIREWISE workshop taught many residents the principles of wildfire preparedness. Now, several may be motivated to take an active role in helping educate the public on these same principles. As new subdivisions are developed and people, who may not be aware of the fire risk, move into Spearfish, there is a need to get the word out about wildfire preparedness. New residents need to know that creating defensible space around a

structure can make the difference between whether or not it will survive fire. Developers, realtors, insurance agents, and homeowners associations need to become involved in wildfire education.

Address water supply issues

Limited water supply was identified as a major issue, especially in subdivisions in the hills and canyons outside of Spearfish. Some homeowners pay high insurance premiums because they are located too far from an existing water supply. In some newer subdivisions, developers have been encouraged to put in 30,000-35,000 gallon water tanks to increase the potential for wildfire preparedness. Dry hydrants could also offer another option for water access and have been installed in some areas.



Establish wildfire zoning/planning regulations

Many subdivisions in the hills and canyons outside the city limits of Spearfish do not have zoning or planning regulations. Beyond water supply problems, road access in and out of these areas is often an issue. Fire trucks are unable to reach certain areas. Adopting regulations related to wildfire preparedness, such as the WUI ordinance drawn up by the Lawrence County Fire Advisory Board, would be beneficial to these subdivisions.

Professionalize Volunteer Fire Departments

Turnover was recognized as a problem for many of the county's VFDs. When firefighters leave, they take years of knowledge, experience, and training with them. Benefit programs, such as a deferred compensation package in which firefighters receive certain benefits after serving a specific number of years, would help reduce a high turnover rate.

Modernize firefighting technologies

Having the right equipment and training is critical to effectively combat wildfire. Several residents identified the advantages of using foam to protect structures and the need to purchase updated trucks, tankers, and pumps. Grant programs and other means of financial assistance are available to VFDs for updating their firefighting fleet. One such program is the Rural Community Fire Protection (RCFP) program, administered by the State's Resource and Conservation Division and supported by a matching grant through the USDA Forest Service, which assists VFDs in purchasing protective clothing, training materials, and other equipment.

Preparing for Wildfire: Lessons for Other Communities from Spearfish

1. Know your area. Understand its ecological history and the role of fire in shaping the landscape. Learn to live with fire.
2. Be proactive. Landowners need to take individual responsibility for reducing fuels on their property, spreading word to neighbors and new residents, attending meetings and fundraisers, and donating to local VFDs.
3. Form a wildfire advisory board. Keep communication lines open by meeting on a routine basis. Work together to educate the public and mitigate fuel loads.
4. Use modern technology, such as GPS and GIS, to help locate and identify structures, create firebreaks, determine forest fire extent, and model forest fire risk and potential wildland-urban interface areas.
5. Know funding sources. Apply for grants and use other financial resources to implement fuel reduction projects, buy equipment, and receive training.



Web Sites for More Information on Spearfish and Wildfire Preparedness

City of Spearfish: <http://www.city.spearfish.sd.us>

Black Hills National Forest: <http://www.fs.fed.us/r2/blackhills>

FIREWISE: <http://www.firewise.org>

The South Dakota Division of Wildland Fire Suppression: http://www.state.sd.us/doa/Wildland_Fire/Home_Page/index.htm

The South Dakota Division of Resource Conservation and Forestry: <http://www.state.sd.us/doa/forestry/index2.htm>

Rapid City Journal: <http://www.rapidcityjournal.com>

North Central Research Station, USDA Forest Service: <http://www.ncrs.fs.fed.us>



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The Wildfire Preparedness Project of the National Fire Plan

Communities across the U.S. have voiced increasing concern about how they can better prepare for wildfire. Even in areas of the country not traditionally thought of as having high fire risk, storms, changing climate, and pest/disease outbreaks have increased concern about the potential for catastrophic fire. In areas where fire is viewed as a natural part of the ecosystem, the fact that more and more people choose these places to live in means that there is a potential for major fire impacts. A team of scientists funded by the National Fire Plan have been visiting communities across the country to identify the activities communities are undertaking to increase wildfire preparedness, and the resources necessary to support these activities. The project is led by the North Central Research Station, in cooperation with the Pacific Northwest Research Station, University of Florida, University of Minnesota, and Southern Oregon University.

This is the first in a series of summaries reflecting findings of the case studies. Hard copies of this summary can be obtained from the individuals listed below. All case study summaries currently available can be found on the web at:

www.ncrs.fs.fed.us/4803/Highlights.htm

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