



Hot Springs Village, Arkansas Community Wildfire Protection Plan



CWPP: AN ACTION PLAN FOR WILDFIRE MITIGATION

Community Hot Springs Village, Arkansas **Date** March 2007

Prepared by Kelly Hurt, Ph.D.

Organization Freelance Consulting Services, Inc.

Contact Information

Address RR 1 Box 382, Allen, OK 74825

Phone (580) 421-7512

E-Mail f1c33@sbcglobal.net

The following report is a cooperative effort between various entities. The representatives listed below comprise the core decision-making team responsible for this report and mutually agree on the plan's contents.

Community Representatives

Name Janice Morrison – Co Chair

Address 40 Encantado Way, Hot Springs Village 71909

Phone Number (501) 922-6656

Other Contact Information jmhb@suddenlink.net

Name Henry Browder – Co Chair

Address 40 Encantado Way, Hot Springs Village 71909

Phone Number (501) 922-6656

Other Contact Information henry-b-77@suddenlink.net

Local Fire Department Representatives

Name Ricky Middleton
Address 113 Callella Road, Hot Springs Village, AR 71909
Phone Number (501) 922-0011

Local Arkansas Forestry Commission Representatives

Name Bill Howard
Address 9462 Highway 9 North, Benton, AR 72015
Phone Number (501) 594-5296
Other Contact Information afc.salinecounty@mail.state.ar.us

The following federal and other interested parties were consulted and involved in the preparation of this report.

Name	Organization
Jim Gifford, Secretary	HSV Trails Committee
Bruce Caverly	HSV Natural Resources and HSV Emergency Preparedness Committees
Carolyn Minson	HSV Audubon Society and HSV Trails Committees
Mike Misch	POA Board of Directors
Jeff Pickett	HSV Volunteer Fireman
Bob Brandt	HSV Architectural Control Committee
Lt. Ricky Middleton	HSV Department of Public Safety
Hunter Ray	President, HSV Board of Realtors
Darrell Humpherys	USFS

PLAN CONTENTS

Community Background and Existing Situation	5
Community Base Map and Other Visuals	10
Objectives and Goals	10
Prioritized Mitigation Recommendations	10
Action Plan	11
Wildfire Pre-Suppression Plan	12
Additional Comments	14
Attachments	15

1) COMMUNITY BACKGROUND AND EXISTING SITUATION

Community Description

County	Garland and Saline	Latitude/Longitude	34.49N/93.06W
Frontage Road	Hwy 7 /Hwy 5	Nearest Intersection	Hwy 7 and Hwy 5
Local FD name and location	Hot Springs Village Fire Department 115 Calella Road, Hot Springs Village, AR 71909		
Interface Areas	The community is heavily wooded and dominated by interface areas near undeveloped common properties and undeveloped private lots.	Year Established	1970

Community Size

Number of Lots	34,309 in 2004	Number of Structures	7,154
Estimated Acres	>26,000	Development Status	Residential

Community Infrastructure

Home Owners Association or POA Yes No *If yes, attach a copy of ordinances.*

Contacts

Name	Dave Johnston, General Manager		
Address	895 DeSoto Boulevard, Hot Springs Village, AR 71909		
Phone Number	(501) 922-5530		
Name	Lt. Rickey Middleton, Department of Public Safety		
Address	113 Calella Road, Hot Springs Village, AR 71909		
Phone Number	(501) 922-0011		

Resident Population

Total	<u>13,200 (2000 census)</u>			
Part-Time	100-75%	75-50%	50-25%	less than 25% <input checked="" type="checkbox"/>

Wildfire Hazard Rating

Low Moderate High Extreme

Ingress/Egress

Community Access. Access to the Hot Springs Village proper is provided by two staffed gates and four card operated gates. One of the staffed gates is located at the most extreme western end of the village on Highway 7. The other staffed gate is located at the eastern end of the community on Highway 5.

All village entries are adequately marked for easy identification by emergency services. Major access road intersections are well marked. All major access roads are of the all-weather paved surface type with sufficient width for fire apparatus.

Subdivision Access. Roadways and streets within subdivisions are of the hard surface type with sufficient width for easy access by fire apparatus. Much of the village is comprised of winding streets with many dead-end cul-de-sac neighborhoods. Most dead-end streets are of the cul-de-sac type with sufficient radius for safe and timely turnaround maneuvering for most fire apparatus. In addition, the terminus of most dead-end streets is located a short distance from at least two escape paths.

Streets Signs. All areas of the village are provided with street signs at intersections. However, most side street intersections have only one of the two streets signs posted with the exception of major intersections. In addition, some signs are hard to readily identify while approaching intersections due to the use of non-contrasting earth tones. Further, many signs are not of adequate height for easy visibility and are mounted on combustible wooden posts.

Road Width. Due to the suburban setting, much of the village is served by municipal streets of moderate or significant width. It appears the custom of on-street parking is limited which can greatly enhance the use of streets and roadways as evacuation routes in the event of a major wildfire emergency.

Public Fire Protection

Hot Springs Village Fire Department. The HSVFD is a full service fire department provided with sufficient stations, equipment and highly trained full time and volunteer fire fighters to adequately respond to most emergency incidents. The department is ready to combat up to

moderately sized wildland fires that could occur within the boundaries of the village. There are several volunteer fire departments surrounding the village that have automatic and/or mutual aid with the HSVFD. The Hot Springs Fire Department, an all career municipal agency, is located just south of the village and has additional resources readily available in the event of a major outbreak of large-scale wildland fires. In addition, wildland firefighting services are available from nearby federal and state forestry agencies along with private timber industry interests in the event of a major wildland incident within or near Hot Springs Village.

Fixed Fire Protection. Only a select number of commercial properties assessed are equipped with automatic fire sprinklers and related fixed fire protection systems. An estimated 98-99 percent of properties assessed are one and two family dwellings where fixed systems are not commonplace at this time.

Water Supply

The village has a community water system. Onsite observations indicate an adequate distribution of fire hydrants (total of ~1400) exist throughout the village. Hydrant locations are marked on roadways and are easily accessible. Hydrants of the three-way pumper type are sufficiently spaced within all subdivisions. This, along with adequate volumes and pressures from the system via storage facilities, pumps and distribution lines, can contribute greatly to the fire services ability to mitigate interface fires before their escalation into major conflagrations.

Fuel Load

Vegetation and fuel load is typical of the region with a mix of native hardwood and evergreen trees. Surface fuels vary from moderate to heavy buildup. Fuels near homes and businesses are significant in all areas of the village.

Defensible Space

As with similar planned communities, the village promotes a rural life style that is one with nature. This rural setting encourages the practice of allowing vegetation to grow close to dwellings and other structures. However, the practice where a residential lot is cleared of much of its undergrowth prior to construction appears to be the common practice in much of the village. Many yards assessed are landscaped with gravel and minimal vegetation,

creating an ideal setting for optimum defensible space. There are more deficiencies in defensible space in subdivisions in the western region of the village. This may be due to this area being developed when most dwellings were seasonal homes. This, along with steeper terrain, makes this region more vulnerable to wildfires of any significance.

Slope

The slope ranged from severe in the western region of the village to more moderate along the eastern and south-central sections of the village. Regardless, many homes in areas with severe slopes have setbacks clear of any significant vegetation. Many of the homes assessed were located on the slope, increasing their exposure to radiant heat and direct flame contact from fast spreading wildfire located below the exposed property. Many of the homes have overhanging wooden decks, which could greatly increase the structures vulnerability to fire damage.

Building Spacing

Building spacing varied from high density in the more urbanized sections of the community to sparsely spaced in outlying areas. Many of the assessed properties in older sections are of higher density with minimum set back from property lines and surrounding structures.

Roof

Most properties assessed had asphalt or fiberglass shingles. A small number of dwellings were covered with tile, metal or similar fire resistive roof covering.

Building Materials

Most properties assessed were frame structures with exposed wood or brick veneer. A smaller percentage of homes were covered with vinyl or similar combustible siding.

Placement of Utilities

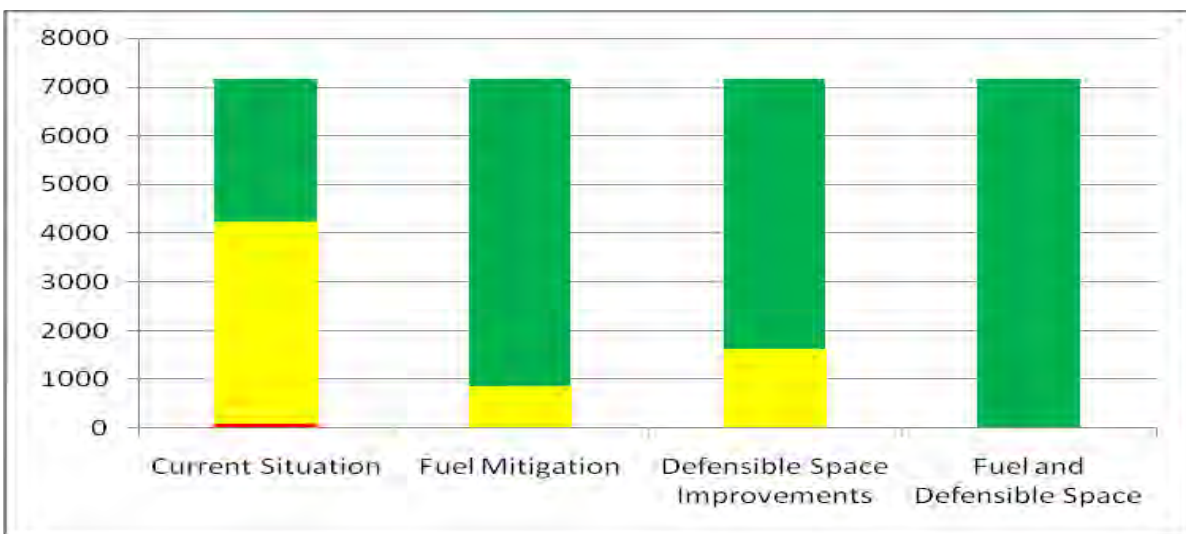
In nearly all cases at least one utility, usually electrical, was located above ground. Certain properties in the more rural outlying areas were equipped with both electrical and propane above ground (maximum size: 200 lb cylinder above ground, 500 gallon tanks in ground).

Conclusions

Two of the most influential and most easily remediated Firewise factors are fuel loading and defensible space. High scores for these two factors alone can result in a home being ranked a moderate risk. If they also only have minimal scores for other factors, homes with high scoring defensible space and fuel loadings typically score at the higher end of moderate risk scale or even cross into the high risk category. In the case of these two factors, individual homeowners can take simple steps on their property to reduce risk. The following figure illustrates the number of Hot Springs Village homes at risk under different scenarios. High risk is indicated by red, moderate risk by yellow and low risk by green.

- The first scenario represents current conditions. Under current conditions, there are 87 homes worth \$8,600,000 rated as high risk, 4150 homes worth \$290,000,000 rated as moderate risk and 2917 homes worth \$220,000,000 rated as low risk.
- If all Hot Springs Village homeowners were able to mitigate fuels to Firewise levels as shown under the second scenario, the number of homes at high risk would be reduced to 0, moderate risk homes would decrease to 871 and low risk homes would increase to 6283.
- The third scenario illustrates the reduction in risk associated with establishing the defensible space around each home in Hot Springs Village. In this case, only one home would remain high risk, the number of moderate risk homes would decrease to 1619 and the number of low risk homes would increase to 5534.
- Lastly, if both fuel mitigation and defensible space criteria were met, Hot Springs Village would not have any high risk homes, only 34 moderate risk homes and 7120 low risk homes. Under this scenario almost all of the \$520,000,000 worth of Hot Springs Village property would be in the low risk category.

This simple analysis demonstrates the Firewise results that can be gained by simply reducing the amount of fuel near homes and increasing the distance between homes and fuel. This also illustrates that, from a current or potential homeowner's perspective, Hot Springs Village has a reasonably assumed risk that can be mitigated by individual homeowner effort. In addition, Hot Springs Village has nine golf courses and 14 lakes that act as natural fire breaks.



Evaluation Date: February 2007

Community Wildfire History (include surrounding areas)

Relative Frequency	One per year inside*, 20 per year within 1 mile of boundary.
Common Causes	Arson fires or accidents (for example, fire works, cigarettes, cigars, etc.)
Future Concerns	Ignition of fuels in recently logged common areas and right-of-ways
Additional Comments	*defined as any fire burning uncontrolled and requiring suppression

2) COMMUNITY BASE MAP AND OTHER VISUALS	
<i>Please refer to attached large format maps.</i>	
3) OBJECTIVES / GOALS	
<p>Objectives The objectives of this plan/report are to set clear priorities for the implementation of wildfire mitigation in the identified community. This includes prioritized recommendations for the community as a whole and also for individual homeowners where appropriate.</p> <p>Goals The goals are fuel reduction and defensible space improvements that will protect this community and its essential infrastructure. It also includes a wildfire pre-suppression plan.</p>	
4) PRIORTIZED MITIGATION RECOMMENDATIONS	
The following recommendations were developed by the Community Firewise Board as a result of the community wildfire risk assessment and follow-up meetings with local, state, federal and community stakeholders. A priority order was determined based on which mitigation projects would best reduce the hazard of wildfire in the assessment area.	
Proposed Community Hazard Reduction Priorities	
1.	Educate homeowners about the home ignition zone in high (face to face) and moderate (mass media/radio/newspaper) risk areas identified during the assessment.
2.	Develop and implement fuel management plan for recently logged common areas and right-of-way trimming.
3.	Educate the public about the evacuation processes of Hot Springs Village and to improve reflectivity and line of sight for street signs as they are replaced due to attrition.
4.	Educate the public on the proper process for expanding defensible space into vacant lots.
Proposed Structural Ignitability Reduction Priorities	
1.	Maintain, in the case of low fuel loading, or decrease fuel loads near homes.
2.	Increase defensible space by encouraging cooperative neighborhood efforts that produce an integrated defensible space.

3.	Remove leaves and pine needles from roofs, gutters and near the bases of homes. Generally relocated flammable materials to areas away from homes.
4.	Encourage homeowners and builders to choose non-flammable or otherwise Firewise materials when renovating or expanding homes.
Proposed Education and Outreach Priorities	
1.	Conduct focused outreach to high risk homes noted in the assessment database.
2.	Target local associations to distribute informational packets to neighborhoods with moderate risks.
3.	Place Firewise and Wildfire Prevention information on village website and run informational press releases in the Village Voice and public service announcements on local radio and television. Link local website to www.arkansasfirewise.com and www.firewise.org .
4.	Seek approval for POA recognized Firewise Board.
5) ACTION PLAN	
Funding Needs (<i>Projects are listed according to priority; estimated cost and potential funding sources are also given</i>).	
1.	Conduct the focused outreach to high risk homes.
2.	Streamline process for requesting NRC permission to increase defensible space on common property.
3.	Develop an ongoing outreach campaign using Radio/TV/Newspaper
4.	Conduct Firewise Day.
Timetables (<i>Projects are listed according to priority; an estimated duration, start date and targeted completion date are also given</i>).	
1.	Focused outreach starts June 1, 2007 and should be completed by September 1, 2007.
2.	Approach NRC on June 1, 2007 to streamline approval process. Estimated completion of July 1, 2007.
3.	Kickoff mass media outreach program on June 1, 2007 and pursue continuously.
4.	Firewise Days will be held annually during the Village Fair (fall).

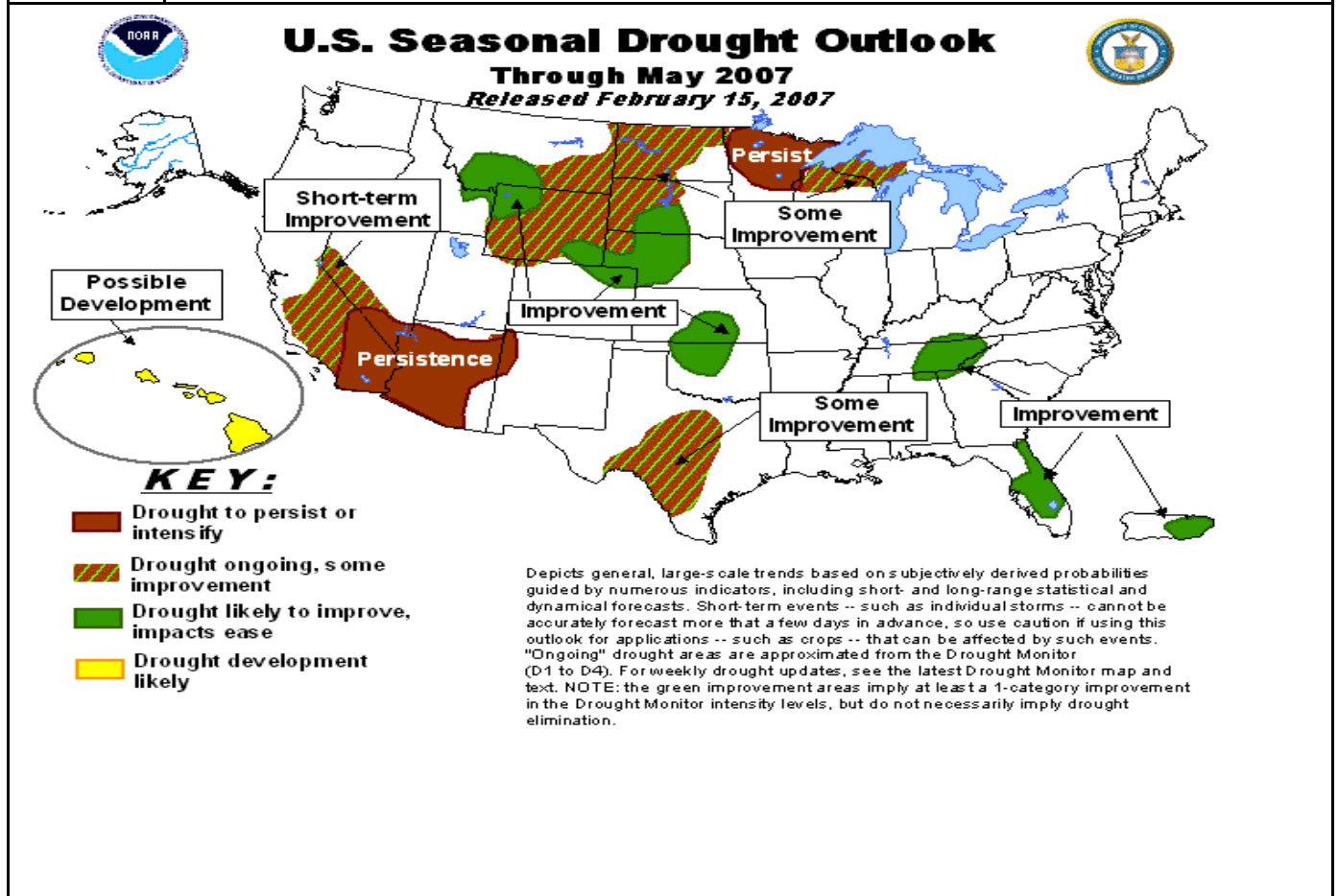
Assessment (<i>Strategy used to assess the plans progress and effectiveness.</i>)			
1.	100% coverage of high risk homes.		
2.	Approved NRC process.		
3.	PSA's and press releases become frequently recurring events.		
4.	Firewise Days become an annual event		
6) WILDFIRE PRE-SUPPRESSION PLAN			
A.	Wildfire Protection Responsibility		
	Structural Protection	Hot Springs Village Fire Department	
	Wildland Protection	Hot Springs Village Fire Department and Arkansas Forestry Commission	
B.	Incident Command Post Location		
	Command Center at Hot Springs Village Fire Department		
C.	Incident Staging Area Location		
	Incident specific		
D.	Medical Unit Staging Area Location		
	Incident specific		
E.	Alarm Response First Alarm		
	Fire Department/Rescue Squad	Travel Distance	Response Time
	Hot Springs Village Fire Department	Local	3 minutes
Second Alarm (<i>report to designated staging area</i>)			
	Fire Department/Rescue Squad	Travel Distance	Response Time
	Jesseville Volunteer Fire Department	4 miles	10 minutes
	Fountain Lake Fire Department	3 miles	10 minutes
	Piney FD for West	3 miles	10 minutes
	Lonesdale Volunteer Fire Department	10 miles	15 minutes
	AFC Dozers - Saline	8 miles	15 minutes
	AFC Dozers -Garland	3 miles	10 minutes

F.	Fixed Wing Air Support		
	Aircraft	Location	Telephone
	AFC SEAT	Hot Springs Air Port	(501) 332-2000
G.	Water Availability		
	Location	Hydrants and lakes are located throughout the village.	Description Standard hydrants
H.	Communications (<i>Attach Communications Plan if available</i>)		
	Name	Phone Number	Radio Frequencies
	Dispatch/Fire Departments		
	Local Arkansas Forestry Commission Office		
	Bill Howard	Work: (501) 594-5296	Cell:(501) 316-4602
	Willard Speers – Garland	Work: (501) 984-5733	Cell: (501) 337-3235
I.	Evacuation (<i>Attach Evacuation Plan</i>)		
J.	Resource List		
	Name	Contact Information	Payment Information
	Support Agencies		
	AFC Central Dispatch	(501) 332-2000	N/A
	Utilities		
	Entergy – Garland County	(800) 368-3749	
	First Electric – Saline County	(501) 889-2312	
	Ferrellgas/Synergy	(501) 778-3580/(501) 767-5960	
	Fuel		
	TBD		
	Food and Supplies		
	TBD		

	Lodging		
	TBD		

7) ADDITIONAL COMMENTS

The latest NOAA drought outlook indicates that Arkansas is not currently experiencing nor is it expected to experience drought conditions through May 2007. However, droughts are cyclical and not uncommon to the area. Future droughts coupled with the high fuel load of the village will increase the wildfire risk of Hot Springs Village. Homeowners should be encouraged to adopt or continue fuel management techniques in the home ignition zone.



8) ATTACHMENTS *(List here in order of attachment)*

	Firewise Board Meeting and Plan Review
	Firewise Board Members (partial group)
	Firewise Community Outreach
	Example of Fuel Mitigation Along Road Right-of-Way





