

# Idlewild Firewise Community Assessment



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## **INTRODUCTION**

The Firewise Communities/USA program is designed to provide an effective management approach for preserving wildland living aesthetics. The program can be tailored for adoption by any community and/or neighborhood association that is committed to ensuring its citizens maximum protection from wildland fire. The following community assessment is intended as a resource to be used by the residents of the Idlewild and updated and modified as needed.

Paul Fahrenthold, President, Idlewild Community contacted Dan Ware, Fire Prevention and Outreach Program Manager with New Mexico State Forestry Division on July 01, 2013. Mr. Fahrenthold requested assistance to conduct a Firewise Community Assessment for Idlewild. Dan Ware then contacted Arnie Friedt, Forester with New Mexico State Forestry Division, Cimarron District to set up a field visit to Idlewild. Arnie Friedt, Dan Ware and Chris Romo, Fire Management Officer, Cimarron District met with Paul Fahrenthold and Frank Dodge, Idlewild Caretaker on July 24, 2013. Discussion items included acres, number of lots, number of fulltime residents, past, present and future treatment activities and future plans to become a Firewise Community.

A Community Wildfire Protection Plan (CWPP) for Colfax County was completed in July 2008. This document assesses the wildfire threat and hazardous fuels treatment priorities on a landscape scale. The Idlewild Firewise Community Assessment uses the data and findings of the CWPP for Colfax County to assess the wildfire threat and treatment priorities specific to Idlewild. Mitigation measures which will reduce the threat of wildfire damage to property, life and the land are proposed. Project scale data from the CWPP for Colfax County is presented to aid in planning and designing purposes.

The objectives of the CWPP for Colfax County are to:

- Create a county-wide, landscape level plan;
- Locate the highest areas at risk from catastrophic wildfire in the County;
- Prioritize these areas based on the values of the citizens of the County;
- Suggest mitigation actions for the protection of life, property, critical infrastructure and wildlands in the County;
- Follow-through with “on-the-ground” by developing local wildfire protection plans for implementation of objectives of the county-wide plan.

The CWPP for Colfax County can be viewed at the following address:

<http://www.emnrd.state.nm.us/SFD/FireMgt/documents/ColfaxCountyCWPP.pdf>

## **DEFINITION OF HOME IGNITION ZONE**

Idlewild is located in a wildfire environment. Wildfires will happen—exclusion is not a choice. The variables in a fire scenario are when the fire will occur, and where. This assessment addresses the wildfire-related characteristics of Idlewild. It examines the area’s exposure to wildfire as it relates to ignition potential. The assessment does not focus on specific homes, but examines the community as a whole.

A house burns because of its interrelationship with everything in its surrounding home ignition zone—the house and its immediate surroundings. To avoid a home ignition, a homeowner must eliminate the wildfire’s potential relationship with his/her house. This can be accomplished by interrupting the natural path a fire takes. Changing a fire’s path by clearing a home ignition zone is an easy-to-accomplish task that can result in avoiding home loss. To accomplish this, flammable items such as dead vegetation must be removed from the area immediately around the structure to prevent flames from contacting it. Also, reducing the volume of live vegetation will affect the intensity of the wildfire as it enters the home ignition zone.

Included in this assessment are observations made while visiting Idlewild. The assessment addresses the ease with which home ignitions can occur under severe wildfire conditions and how these ignitions might be avoided within the home ignition zones of affected residents.

Idlewild residents can reduce their risk of destruction during a wildfire by taking actions within their home ignition zones. This zone principally determines the potential for home ignitions



during a wildland fire; it includes a house and its immediate surroundings within 100 to 200 feet, see Figure 1. This is also referred to as defensible space.



**Figure 1 - Home Ignition Zone**

The result of the actions is that wildfire behavior will be dominated by the residential characteristics of the area. The good news is that by addressing community vulnerabilities, residents will be able to substantially reduce their exposure to loss. Relatively small investments of time and effort will reap great rewards in wildfire safety.

### **CHARACTERISTICS OF SEVERE CASE WILDLAND FIRE THAT COULD THREATEN THE AREA**

Fire intensity and spread rate depend on the fuel type and condition (live/dead), weather conditions prior and during ignition, and topography. Generally the following relationships hold between fire behavior and fuel, weather and topography:

- Fine fuels ignite more easily and spread faster with higher intensities than coarser fuels. For a given fuel, the more there is and the more continuous it is, the faster fire spreads and the higher the intensities. Fine fuels take a shorter time to burn out than coarser fuels.
- Weather conditions affect the moisture content of dead and live vegetative fuels. Dead fine fuel moisture content is highly dependent on the relative humidity and degree of sun exposure. The lower the relative humidity and the greater the sun exposure, the lower will be the fuel moisture content. Lower fuel moistures produce higher spread rates and fire intensities.
- Wind speed significantly influences the rate of fire spread and fire intensity. The higher the wind speed, the greater the spread rate and intensity.
- Topography influences fire behavior principally by the steepness of the slope. However, the configuration of the terrain such as narrow draws, saddles and so forth can influence

fire spread and intensity. In general, the steeper the slope, the higher the uphill fire spread and intensity.

The changes in fire behavior as well as the increasing presence of structures in the rural areas were a cause for concern among those charged with fighting fires and managing for emergencies. In neighboring Taos County, the Hondo fire in 1996 was a harbinger of how wildfire behavior was changing, and just how fast and destructive a wildfire in the pinyon-juniper type could be. The Hondo fire holds the national record for rate of spread through pinyon-juniper fuel type (Ben Kuykendall, Pot creek community wildfire protection plan, 2005). Since the Hondo fire there have been numerous other large fires in the western United States, and cumulatively have given cause for the people who reside and recreate in and near the wildlands to express concern about the ever increasing danger and potential destruction they are facing. As information about wildland vegetation structure and its relationship to catastrophic wildfire became more commonly known, the by words began to be “not IF it burns, but rather WHEN it burns”.

## **SITE DESCRIPTION**

Idlewild is located in west central Colfax County in northeastern New Mexico. Idlewild is located about 2.5 miles west of the community of Eagle Nest off of US Highway 64. Idlewild was created in the 1930's and encompasses 250 home sites on 200 acres at an average elevation of 8,700 feet. Idlewild has a legal description of Latitude 36.550° and Longitude -105.305°. Located within Township 27 North, Range 15 East, Section 25. Idlewild is surrounded by private property on the north, east and south sides and by tribal property on the west side see figure 2. One perennial stream, Froelick Creek, intersects Idlewild from west to east. And, two intermitted streams intersect Idlewild from the northwest. The boundary of the Carson National Forest is west of Idlewild just over 1.5 miles.

The majority of the forested portions of the property contain the ponderosa pine/Gambel oak habitat type. Intermixed with ponderosa pine (*Pinus ponderosa*) and Gambel oak (*Quercus gambelii*) are limited amounts of Douglas-fir (*Pseudotsuga menziesii*), White fir (*Abies concolor*) and quaking aspen (*Populus tremuloides*).



## **ASSESSMENT PROCESS**

The Idlewild Firewise Community Assessment was conducted on July 24, 2013 by Arnie Friedt, Dan Ware and Chris Romo, all employees of New Mexico State Forestry Division. Also present during the assessment were Paul Fahrenthold and Frank Dodge. The following form was utilized to obtain required information for the assessment: “Wildfire Hazard Severity Form Checklist” “NFPA 299/1144”. A drive through of Idlewild was conducted and all relevant resources were discussed and noted.

## **OBSERVATIONS AND RECOMMENDATIONS**

The following observations were taken on July 24, 2013 by Arnie Friedt, Dan Ware and Chris Romo and are documented on “Wildfire Hazard Severity Form Checklist NFPA 299 / 1144” (Appendix A):

### **A. Subdivision Design**

#### **1. Ingress and egress (Main Road)**

**Risk Points** = 7

**Notes:** Currently, Idlewild has only one ingress and egress locations.

**Recommendation:** Develop other ingress and egress routes to and from Idlewild. Depending on the location of the fire in reference to Idlewild, development of additional ingress and egress are encouraged for evacuation of residents and fire service responding to an emergency.

#### **2. Road width (Main Road)**

**Risk Points** = 2

**Notes:** Main road is between 20 and 24 feet wide.

**Recommendation:** Widen all proposed evacuation routes out of Idlewild. A wider main road is encouraged for evacuation and fire service responding to an emergency.

#### **3. All-season road condition (Main Road)**

**Risk Points** = 2

**Notes:** The observed road is surfaced with an average grade >5%.

**Recommendation:** Continue to maintain main road to accommodate fire service responders to house fires in all weather conditions.

#### **4. Fire service access (Driveway)**

**Risk Points** = 5

**Notes:** There were no observed turnarounds and the grade of the main road may be an obstacle for fire service equipment.



**Recommendation:** The development of turnarounds for fire service equipment is encouraged.

**5. Street signs (Main Road, i.e.; address, dead-end)**

**Risk Points** = 0

**Notes:** Idlewild is well signed.

**Recommendation:** Maintain signage for emergency responders for all properties. Develop evacuation route and post signs accordingly.

**B. Vegetation (Fuel Models, 300' and beyond)**

**1. Predominant vegetation**

**Risk Points** = 20

**Notes:** The vegetation is considered as Fire Behavior Fuel Model 10: the fires burn in the surface and ground fuels with greater fire intensity than the other timber litter models. Dead-down fuels include greater quantities of 3-inch (7.6-cm) or larger limbwood resulting from overmaturity or natural events that create a large load of dead material on the forest floor. Crowning out, spotting, and torching of individual trees are more frequent in this fuel situation, leading to potential fire control difficulties. Any forest type may be considered if heavy down material is present; examples are insect- or disease-ridden stands, windthrown stands, overmature situations with deadfall, and aged light thinning or partial-cut slash.

**Recommendation:** Conduct defensible space treatments and forest management treatments.

**2. Defensible space (0 to 300')**

**Risk Points** = 25

**Notes:** There have been a number of property owners who have created defensible space, however, many property owners have not.

**Recommendation:** Educate the property owners on defensible space. Conduct defensible space treatments and forest management treatments. Provide use of the county chipper.

**C. Topography**

**1. Slope**

**Risk Points** = 7

**Notes:** Slope within Idlewild is wide ranged. Slope ranges from less than 1% slope in the meadows to greater than 41% slope, with an average slope of 21-30%.

**Recommendation:** If new structures are built in the future discourage property owners to build on steep slopes.

#### **D. Additional Rating Factors**

##### **1. Topography that adversely affects wildland fire behavior**

**Risk Points = 5**

**Notes:** There were a numerous structures located on south facing aspects which is a contributing factor to very active fire behavior.

**Recommendation:** If new structures are built in the future discourage property owners to build in areas that contribute to very active fire behavior.

##### **2. Area with history of higher fire occurrence**

**Risk Points = 1**

**Notes:** Area has low history of fire occurrence.

**Recommendation:** N/A

##### **3. Areas of unusually severe fire weather and winds**

**Risk Points = 5**

**Notes:** Strong downslope winds from the mountain range and the community being on the lee side.

**Recommendation:** N/A

##### **4. Separation of adjacent structures**

**Risk Points = 5**

**Notes:** There are over 250 structures on 200 acres of land.

**Recommendation:** As new structures are planned educate the landowner about separation of adjacent structures and incorporate Firewise construction on all new structures.

#### **E. Roofing Materials**

##### **1. Construction Material**

**Risk Points = 0**

**Notes:** This assessment did not look at individual structures. However, most structures were observed to have appropriate roofing materials.

**Recommendation:** Class A roofs (metal, tile) are highly recommended for all structures within Idlewild.

#### **F. Existing Building Construction**

##### **1. Materials**

**Risk Points = 10**

**Notes:** This assessment did not look at individual structures. However, some structures were observed to have appropriate building materials. Many more did not have appropriate building materials.

**Recommendation:** Noncombustible siding/deck is highly recommended for all structures within Idlewild.

**2. Setback from Slopes >30%**

**Risk Points** = 5

**Notes:** Slopes >30% and too many structures in a small area are common in Idlewild.

**Recommendation:** As new structures are planned educate the landowner about setback from slopes.

**G. Available Fire Protection**

**1. Water source availability (on site)**

**Risk Points** = 10

**Notes:** No local hydrants available.

**Recommendation:** The development of a local water source for initial and extended attack (i.e. water tank, dry fire hydrant).

**2. Organized response resources**

**Risk Points** = 1

**Notes:** Eagle Nest Fire Department is located 3 miles from Idlewild.

**Recommendation:** N/A

**3. Fixed fire protection (interior, some exception to outside)**

**Risk Points** = 5

**Notes:** This assessment did not look at individual structures.

**Recommendation:** Educate the property owners on fixed fire protection.

**H. Utilities (Gas and Electric)**

**1. Placement**

**Risk Points** = 3

**Notes:** Propane lines are underground, however electric lines are aboveground.

**Recommendation:** Bury electric lines to eliminate the possibility of downed electric lines causing a wildland fire or structure fire.

**I. Totals for Risk Assessments = 118 is considered an extreme hazard community.**

The following information was taken directly from the CWPP for Colfax County which incorporates Idlewild:

**Idlewild is considered to be a Fire Regime Condition Class of 2 (Moderate)**

Description: Moderate departure from the natural (historical) regime of vegetation characteristics; fuel composition; fire frequency, severity and pattern; and other associated disturbances.

Potential Risks: Composition and structure of vegetation and fuel are moderately altered; uncharacteristic conditions range from low to moderate; Risk of loss of key ecosystem components is moderate.

**Idlewild is considered to be a Wildfire Risk of Medium**

The wildfire risk reflects the history of fire starts (both natural and human caused ignition) as reported by the New Mexico State Forestry Division (2004 to 2007), and by the Carson National Forest (1996 to 2006). The County was delineated into areas of high, medium, and low risk based on the frequency of fire starts in an area.

**Idlewild is considered to be a Threat Level of Low**

The threat level is the result of overlaying the hazard maps and the wildfire risk map to form a map showing the various combinations of high, medium and low ratings. The threat level map identifies the areas that have a greater chance of experiencing a severe wildfire by using a numerical score method. A numerical score of 1, 2, or 3 was given to the low, medium, and high ratings, respectively, for all areas on the risk map, and on the hazard map. When the risk map is overlaid with a hazard map, every area on the combined map has a combined score that will range from 2 to 6. Areas with scores of 6 were labeled very high, a score of 5 was labeled high, and a score of 4 was labeled medium. The scores of 3 and 2 were labeled low and very low, respectively.

**Background**

The 2007 New Mexico Communities At Risk Assessment Plan shows the communities of Idlewild and Lakeview Pines with a high risk rating. Comments from the Colfax County CWPP core team and from interested public indicated that the communities of Idlewild and Lakeview Pines were at risk of experiencing a catastrophic wildfire.

The immediate area surrounding the communities of Idlewild and Lakeview Pines did not score as a high priority WUI in the mapping process of the Colfax County CWPP. The reason for the lower priority WUI rating is that the Fuel Hazard score was a medium and the Risk (wildfire ignitions) score was low. There probably were wildfire ignitions in the general area that were quickly suppressed and subsequently not reported, and had ignitions occurred and been included in the data available for the CWPP, the Idlewild Lakeview Pines area would have scored in the high priority WUI category.

The Colfax County CWPP considers the communities of Idlewild and Lakeview Pines as high priority WUI, and fuels treatment should cover an extensive area around the communities.



## **Fuels Reduction**

The forested area within the Idlewild and Lakeview Pines WUI should be thinned according to the guidelines outlined in the treatments section of Chapter 4 of the Colfax County CWPP. The objective of the thinning is to reduce the canopy density to a level that will not support a crown fire. The New Mexico State Forestry Division should be contacted for thinning recommendations and technical assistance.

## **SUCCESSFUL FIREWISE MODIFICATIONS**

When adequately prepared, a house can likely withstand a wildfire without the intervention of the fire service. Further, a house and its surrounding community can be both Firewise and compatible with the area's ecosystem. The Firewise Communities/USA program is designed to enable communities to achieve a high level of protection against WUI fire loss even as a sustainable ecosystem balance is maintained.

A homeowner/community must focus attention on the home ignition zone and eliminate the fire's potential relationship with the house. This can be accomplished by disconnecting the house from high and/or low-intensity fire that could occur around it. The following photographs are examples of good Firewise practices:



Flammable vegetation leading to deck.



After mitigation work, deck is less likely to ignite.

## **NEXT STEPS**

After reviewing the contents of this assessment and its recommendations, the Idlewild Firewise Board in cooperation with the Eagle Nest Fire Department will determine whether or not it wishes to continue seeking Firewise Communities/USA recognition. If the site assessment and recommendations are accepted and recognition will be sought, the Idlewild Firewise Board will send the following to the New Mexico State Firewise Liaison-Dan Ware:

1) A copy of this Assessment; 2) Community Action Plan and 3) Firewise Application. Dan Ware will then submit the form to the Firewise Communities/USA representative and they will contact the Firewise Board representative when a decision is made.

## **Community Action Plan**

The community plan is generally a simple action plan, comprised of at least three agreed-upon, doable action items that will improve the site's wildfire readiness. It is created from information contained in the community assessment. Some communities create extremely elaborate plans and some good plans are unsophisticated. All are acceptable. What is necessary within the plan is the identification of doable action items by the Firewise Board. The action plan can be modified with the passage of time.

- Maintains the Firewise Community Program and track its progress or status.
- Invest a minimum of \$2.00 annually per capita in its local Firewise activities (Work done by employees, volunteers, using county or other equipment, can be included, as can state/federal grants dedicated to that purpose).
- Observe a Firewise Communities/USA Day each year that is dedicated to a local Firewise project.
- Submit an annual report to Firewise Communities/USA. This report documents continuing participation in the program.

Idlewild residents are reminded to be conscious of keeping high intensity fire more than 100 feet from their homes. It is important for them to avoid fire contact with their structures. This includes firebrands. The assessment team recommends the establishment of a "fire free zone", allowing no fire to burn within ten feet of a house by removing fuels located there. It is a bad idea for fire to touch a house during a wildfire. Remember that, while wildfire cannot be eliminated from a property, it can be reduced in intensity.

Homeowners are reminded that street signs, addresses, road widths and fire hydrants do not keep a house from igniting. Proper attention to their home ignition zones does. They should identify the things that will ignite their homes and address those.

Weather is, of course, of great concern during wildfire season. When fire weather is severe, homeowners should remember not to leave flammable items outside. This includes rattan doormats, flammable patio furniture, firewood stacked next to the house, or other flammables.

## **REFERENCE MATERIAL**

Community Wildfire Protection Plan for Colfax County

Firewise Communities/USA

NFPA publications: Wildfire Hazard Severity Form Checklist NFPA 299/1144

USDA Forest Service, General Technical Report INT-122, April 1982, Aids to Determining Fuel Models For Estimating Fire Behavior

## APPENDICES

### Appendix A

*Idlewild, NM*

Name of area or address receiving assessment			
	Points	House or area	Notes
<b>A. Subdivision Design</b>			
1. Ingress and egress			
Two or more roads in/out	0		
One road in/out	7	7	
2. Road width			
Greater than 24 feet	0		
Between 20 and 24 feet	2	2	AVG. 20
Less than 20 feet wide	4		
3. All-season road condition			
Surfaced, grade < 5%	0		
Surfaced, grade > 5%	2	2	
Non-surfaced, grade < 5%	2		
Non-surfaced, grade > 5%	5		
Other than all-season	7		
4. Fire service access			
< = 300ft, with turnaround	0		
> = 300ft, with turnaround	2		
< = 300ft, no turnaround	4		
> = 300ft, no turnaround	5	5	
5. Street signs			
Present (4 in. in size and reflectorized)	0	0	
Not present	5		
<b>B. Vegetation ( Fuel Models)</b>			
1. Predominant vegetation			
Light ( grasses, forbs )	5		
Medium ( light brush and small trees)	10		
Heavy ( dense brush, timber, and hardwoods)	20	20	
Slash ( timber harvest residue)	25		
2. Defensible space			
More than 100 ft of treatment from buildings	1		
More than 71 -100 ft of treatment from buildings	3		
30-70 ft of treatment from buildings	10		
Less than 30 feet	25	25	
<b>C. Topography</b>			
1. Slope			
Less than 9%	1		
Between 10-20%	4		
Between 21-30%	7	7	
Between 31-40%	8		
Greater than 41%	10		
Totals for this page		68	



	Points	House or area	Notes
<b>D. Additional Rating Factors</b>			
1. Topography that adversely affects wildland fire behavior	0 - 5	5	
2. Area with history of higher fire occurrence	0 - 5	1	
3. Areas of unusually severe fire weather and winds	0 - 5	5	
4. Separation of adjacent structures	0 - 5	5	
<b>E. Roofing Materials</b>			
1. Construction material			
Class A roof ( metal, tile)	0	0	
Class B roof ( composite)	3		
Class C roof ( wood shingle)	15		
Non-rated	25		
<b>F. Existing Building Construction</b>			
1. Materials ( predominant)			
Noncombustible siding/ deck	0		
Noncombustible siding/ wood deck	5		
Combustible siding and deck	10	10	
2. Setback from slopes > 30%			
More than 30 feet to slope	1		
Less than 30 feet to slope	5	5	
Not applicable	0		
<b>G. Available Fire Protection</b>			
1. Water source availability ( on site)			
500 gpm pressurized hydrants < 1000ft apart	0		
250 gpm pressurized hydrants < 1000ft apart	1		
More than 250 gpm non-pressurized, 2 hours	3		
Less than 250 gpm non-pressurized, 2 hours	5		
No hydrants available	10	10	
2. Organized response resources			
Station within 5 miles of structure	1	1	
Station greater than 5 miles	3		
3. Fixed fire protection			
Sprinkler system (NFPA 13, 13R, 13D)	0		
None	5	5	
<b>H. Utilities ( Gas and Electric)</b>			
1. Placement			
All underground utilities	0		
One underground, one aboveground	3	3	
All aboveground	5		
Totals for this page		50	
<b>I. Totals for Risk Assessments</b>			
Totals for page 1 and 2		118	
1. Low Hazard: < 39 points			
2. Moderate Hazard: 40-69 points			
3. High Hazard: 70-112 points			
4. Extreme Hazard: 113 > points		118	

Assessment conducted on 07/24/13 by Anne Fred,  
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