



The Nevada Fire Safe Council

REPORT TO THE NEVADA STATE LEGISLATURE

NEVADA FIRE SAFE COUNCIL EXPENDITURES

SB 1, § 28
22ND SPECIAL SESSION

DECEMBER 13, 2007

EXHIBIT K-1 - LANDS
Document consists of 39 pages.
Entire Exhibit Provided
Meeting Date: 12-13-07

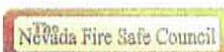


TABLE OF CONTENTS

Report to the Nevada Legislature
Expenditures of the Nevada Fire Safe Council
SB 1, § 28, 22nd Special Session

| | |
|---|---------|
| Executive Summary | Page 1 |
| Introduction to the Nevada Fire Safe Council | Page 2 |
| Affiliated Chapters of the Nevada Fire Safe Council | Page 3 |
| Defensible Space as a matter of Public Policy | Page 4 |
| By the Numbers | Page 5 |
| Project Descriptions and Expenditures: | |
| Belmont | Page 6 |
| Cave Rock | Page 7 |
| Chimney Rock | Page 8 |
| Clear Creek | Page 9 |
| Eagle Ridge at Genoa | Page 10 |
| Galena Forest I. | Page 11 |
| Galena Forest II. | Page 12 |
| Genoa | Page 13 |
| Hidden Woods | Page 14 |
| Holbrook | Page 15 |
| Kings Canyon | Page 16 |
| Lake Village | Page 17 |
| Lakeview | Page 18 |
| Logan Creek | Page 19 |
| Mexican Dam / Pinion Hills | Page 20 |
| Mountain Springs | Page 21 |
| Mt. Charleston | Page 22 |
| Pinenut Creek | Page 23 |
| ROWE | Page 24 |
| Round Hill | Page 25 |
| Skyland | Page 26 |
| Spring Creek | Page 27 |
| Spring Valley / Double Springs | Page 28 |
| Tyrolian Village | Page 29 |
| Upper Kingsbury | Page 30 |
| Virginia City Highlands | Page 31 |
| West Washoe | Page 32 |
| Woodhills | Page 33 |
| Miscellaneous Projects | Page 34 |
| NVFSC in the News | Page 35 |
| NVFSC Contact Information | Page 38 |
| Appendix: Photo Credits and Acronyms | Page 39 |

In 2005, the Nevada Fire Safe Council received an appropriation from the Nevada State Legislature for \$1,546,775 to establish a cost share, community based wildfire threat reduction project, and to assist in the implementation of the recommended wildfire threat reduction projects as described in Community Wildfire Protection Plans. It goes without saying that the 85 affiliated chapters of the Nevada Fire Safe Council and our 4000+ members are thankful for the State of Nevada's contribution to making our communities fire safe. This report summarizes how the funds were spent and demonstrates that a grassroots organization dedicated to keeping our citizens, homes, emergency personnel, and landscapes fire safe can be a cost effective strategy to address the risk of catastrophic loss to wildfires.

**Expenditures of the Nevada Fire Safe Council, SB 1, Sec. 28, 22nd Special Session
July 1, 2005 to September 15, 2007**

| | |
|--|--------------|
| Community chapters receiving State of Nevada funding | 29 |
| Community chapters receiving funding from all sources (out of 85) | 63 |
| Acres treated for fuels reduction using State of NV funds (all or in part) | 1363 |
| Biomass removed or modified, in tons (estimate) | 8166 |
| Dry Hydrant systems installed | 13 |
| State of Nevada contribution for fire safe projects | \$ 1,182,125 |
| Contributions by all other granting entities for ALL fire safe projects | \$ 2,704,703 |
| Community contributions, all communities (soft and hard match) | \$ 1,021,566 |
| Total project value: | \$ 4,908,394 |
| Administrative costs, State of Nevada | \$ 364,651 |
| Administrative costs, other granting entities | \$ 369,821 |
| Total administrative costs: | \$ 733,821 |

Major granting entities for this report period include: The State of Nevada, the Nevada Division of Forestry, the United States Bureau of Land Management and the United States Forest Service. Sharing resources and forming these cooperative relationships has been key to our success. Our success is also that of Nevada's fire protection districts, city and county fire departments and volunteer fire departments. Their commitment to the process by marking properties for defensible space activities and their assistance with raising community awareness is a contribution that builds partnerships while keeping the cost of fire safe projects at a minimum.

Our most important partnership is with our 4000+ members of the Nevada Fire Safe Council and the chapter leaders of each community. Volunteers spend hours going door to door, encouraging full-scale citizen participation, educating their neighbors, and leading by example in their efforts to fire safe their community. The in-kind contributions of our volunteers and chapters are included above as community contributions, as are cash contributions from property owners that go directly into that chapter's project.

The Nevada Fire Safe Council also operates on the California side of the Tahoe Basin, but all California projects and administrative expenses were funded solely by grants from El Dorado and Placer Counties, the United States Forest Service, and private contributions.

The office of the Nevada Fire Safe Council can be reached at (775) 884-4455 or nvfiresafe@charter.net for any further discussion of this document and the expenditure of State of Nevada funds. On behalf of the chapters and the members of the Nevada Fire Safe Council, thank you for your continued support.



Andrew List, Executive Director
The Nevada Fire Safe Council

Throughout the 90's, Nevada's fire management officials became increasingly concerned about the explosive character of wildfires occurring across the state and the growing threat they posed to communities, resources, and human life. While improving fire suppression capability was a direct and obvious approach, fire officials also accepted the fact that supplying more engines and crews was only a partial solution to a very serious and growing problem. Grass roots, community level support and action was needed to create zones of modified fuel that would reduce fire intensity, slow the rate of spread, and give firefighters a realistic chance to defend vulnerable communities. An organizational gap became immediately apparent. In fact, no organization existed that could bridge this gap, marshal local forces, and establish the critical lines of communication required to convert the vision into a community education and fuel treatment reality.

In the spring of 1999 a broad coalition of concerned Nevadans closed this gap by endorsing the creation of an independent, membership-based organization focused on reducing the fire risk and increasing the survivability of at-risk communities. This endorsement and the organizational support that followed gave birth to the Nevada Fire Safe Council (NVFSC).

The unique aspect of the NVFSC is that it is owned by its membership. NVFSC members are a broad coalition of community participants who exercise their ownership through their control of the bylaws and election of the NVFSC board of directors. To coalesce civic-minded citizens into an effective community action group is always a challenge. To overcome this difficulty, the board of directors has spent considerable time identifying and enlisting the support of respected local leaders and promoters of local chapter formation. Once sufficient local membership is obtained, the return on investment is substantial. This is demonstrated by the phenomenal work that has been done by our chapter leaders and the respect they and the NVFSC have established in their respective communities.

The NVFSC currently has 85 affiliated chapters and 4,000+ members in Nevada and the Tahoe Basin. For a list of affiliated chapters and location maps, see page 4. 15 Chapters are located on the California side of the Tahoe basin. However, work done by the Nevada Fire Safe Council in California is funded solely by funds received from El Dorado and Placer Counties, the United States Forest Service, and private contributions.

In 2005, NVFSC received project funds to implement Community Wildfire Protection Plans (CWPPs) drafted for more than 250 communities statewide. Communities recognized as being at "EXTREME" or "HIGH" risk of catastrophic loss in the event of a wildfire were given priority. With State of Nevada funding, the NVFSC has completed or is near completion of projects in 28 of 66 of these priority communities, including such high profile areas of Mt. Charleston in Clark County and the Mt. Rose corridor in Washoe County to the small historic communities of Belmont in central Nye County and Austin in Lander County. The scope, design and outcome of each project was as varied as the communities themselves. While several chapters worked on large-scale fuel breaks, other chapters focused on lot-by-lot community clean up events. Other chapters received additional suppression infrastructure in the form of recycled fuel oil tanks cleaned and certified to hold non-potable water, still others used funds to plan and distribute evacuation routes. NVFSC projects funded with the State of Nevada 2005 appropriation are detailed on pages 6-35 of this report. The State of Nevada 2005 appropriation also provided operating funds for the NVFSC.

To insure that grant funds are properly administered, NVFSC undergoes a rigorous audit annually and is in full compliance with OMB Circular A-110 for all purchases. The NVFSC financial policies and procedures insure that purchases are done after bid solicitations to obtain the lowest possible cost for the project.



Affiliated Chapters

| Chapter # | Community Chapter | Affiliation Date | County |
|-----------|--|------------------|------------------|
| 1 | Virginia City Highlands Chapter | 02/25/02 | Storey |
| 2 | Glenbrook Chapter | 05/27/02 | Douglas |
| 3 | Clear Creek Chapter | 07/12/02 | Carson City |
| 4 | Elk Springs Chapter | 07/25/02 | White Pine |
| 5 | Spring Valley/Double Springs Chapter | 07/26/02 | Douglas |
| 6 | Galena Forest One Chapter | 07/26/02 | Washoe |
| 7 | Ward Mountain Chapter | 08/09/02 | White Pine |
| 8 | Mt. Charleston Chapter | 08/19/02 | Clark |
| 9 | Snake Valley Chapter | 09/04/02 | White Pine |
| 10 | Ruby Valley Chapter | 09/10/02 | Elko |
| 11 | Hidden Woods Chapter | 09/12/02 | Douglas |
| 12 | Tynellian Village Chapter | 11/12/02 | Washoe |
| 13 | Incline Chapter | 11/13/02 | Washoe |
| 14 | Manhattan Chapter | 04/21/03 | Nye |
| 15 | Pine Nut Chapter | 07/14/03 | Douglas |
| 16 | Job's Peak Chapter | 08/12/03 | Douglas |
| 17 | Mt. Wilson Chapter | 09/08/03 | Lincoln |
| 18 | Holbrook Chapter | 10/31/03 | Douglas |
| 19 | Cave Rock Chapter | 06/10/04 | Douglas |
| 20 | Lake Village Chapter | 06/14/04 | Douglas |
| 21 | Cold Creek Chapter | 08/22/04 | Clark |
| 22 | Virginia Foothills Chapter | 09/01/04 | Washoe |
| 23 | Chimney Rock | 09/10/04 | Douglas |
| 24 | Jacks Valley Chapter | 11/05/04 | Douglas |
| 25 | Skyland Chapter | 03/09/05 | Douglas |
| 26 | Lakeriver Chapter | 03/16/05 | Carson City |
| 27 | Eagle Ridge at Genoa Chapter | 05/24/05 | Douglas |
| 28 | Mexican Dam/Pinion Hills Chapter | 05/26/05 | Carson City |
| 29 | Galena Forest Two Chapter | 05/27/05 | Washoe |
| 30 | Timberline Chapter | 06/07/05 | Carson City |
| 31 | Kings Canyon Chapter | 06/16/05 | Carson City |
| 32 | West Washoe Chapter | 07/07/05 | Washoe |
| 33 | Pleasant Valley Chapter | 08/07/05 | Washoe |
| 34 | Smith Valley Colony Chapter | 08/30/05 | Lyon |
| 35 | South Rubicon Bay Chapter | 09/16/05 | El Dorado Co. CA |
| 36 | Sugaphine Parkside Townhouse HOA Chapter | 10/01/05 | El Dorado Co. CA |
| 37 | Kimball Scout Reservation Chapter | 10/05/05 | Clark |
| 38 | R.O.W.E. Chapter | 10/05/05 | Elko |
| 39 | Round Hill Chapter | 10/18/05 | Douglas |
| 40 | Lugan Creek Chapter | 11/03/05 | Douglas |
| 41 | Kingswood Residents Chapter | 11/08/05 | Placer Co. CA |
| 42 | Mountain Springs Chapter | 11/09/05 | Clark |
| 43 | Mt. View Estates | 11/09/05 | El Dorado Co. CA |

| Chapter # | Community Chapter | Affiliation Date | County |
|-----------|--|------------------|-----------------------|
| 44 | Genilbakken Chapter | 01/26/06 | Placer Co. CA |
| 45 | North Carson Chapter | 01/26/06 | Carson City |
| 46 | Genoa Chapter | 02/23/06 | Douglas |
| 47 | O.R.R. Chapter | 02/23/06 | Pershing |
| 48 | Woodhills Chapter | 03/23/06 | Elko |
| 49 | Upper Kingsbury | 03/23/06 | Douglas |
| 50 | Pebble Pines | 04/27/06 | Clark |
| 51 | Talimont Chapter | 06/22/06 | Placer Co. CA |
| 52 | Lagaudale Chapter | 06/22/06 | Clark |
| 53 | Moapa Chapter | 06/22/06 | Clark |
| 54 | Austin Chapter | 06/22/06 | Lander |
| 55 | Belmont VFD Chapter | 09/28/06 | Nye |
| 56 | Spring Creek Chapter | 09/28/06 | Elko |
| 57 | Tahoe Tynol Chapter | 10/26/06 | El Dorado Co. CA |
| 58 | Lake Hills Chapter | 01/25/07 | Washoe |
| 59 | Tahoe Area FSC for Senior and Disabled Persons | 01/25/07 | El Dorado/ Placer, CA |
| 60 | Kingston Chapter | 03/22/07 | Lander |
| 61 | Zephyr Heights | 04/29/07 | Douglas |
| 62 | Vista Point HOA | 05/24/07 | Washoe |
| 63 | Galena Country Estates | 05/24/07 | Washoe |
| 64 | Ridgewood | 05/24/07 | Placer Co. CA |
| 65 | Tahoma Meadows | 05/24/07 | El Dorado Co. CA |
| 66 | Rubicon Properties | 05/24/07 | El Dorado Co. CA |
| 67 | Tahoe City | 05/24/07 | El Dorado Co. CA |
| 68 | Scotch Pines | 06/28/07 | Washoe |
| 69 | The Estates at Mt. Rose | 06/28/07 | Washoe |
| 70 | Saddlehorn | 06/28/07 | Washoe |
| 71 | Elk Point | 06/28/07 | Douglas |
| 72 | Trout Canyon | 06/28/07 | Clark |
| 73 | St. James Village | 06/28/07 | Washoe |
| 74 | Sommerset | 06/28/07 | Washoe |
| 75 | Montreux | 07/26/07 | Washoe |
| 76 | Juniper Hills | 08/23/07 | Washoe |
| 77 | Carnelian Woods | 08/23/07 | Placer Co. CA |
| 78 | Kingsbury South | 08/23/07 | Douglas |
| 79 | Foothill Chapter | 09/19/07 | Douglas |
| 80 | Meridian / Southhampdon Canyon | 09/19/07 | Washoe |
| 81 | Midas | 10/25/07 | Elko |
| 82 | Horseman's Canyon | 10/25/07 | Washoe |
| 83 | Red Rock North | 10/25/07 | Washoe |
| 84 | Tamarack Rubicon | 11/15/07 | El Dorado Co. CA |
| 85 | Angora Highlands | 11/15/07 | El Dorado Co. CA |

Defensible space increases the safety of fire suppression personnel. In 2006, 24 firefighters were killed while fighting wildfires¹. This includes five firefighters of a U.S. Forest Service engine crew who were killed in Southern California while trying to protect structures. Defensible space around homes is proven to save lives by providing firefighters a more secure area in which to work while protecting structures. During a wildfire, firefighters will often not attempt to protect structures with inadequate defensible space, for both safety reasons and the likelihood that their efforts will be unsuccessful. Fuels reduction projects along roadsides also contribute to public safety by keeping evacuation routes open and allowing fire suppression equipment to enter into the community.

Implementing fuels reduction projects prior to a wildfire event can mitigate the costs of future fire suppression. A shift in those costs from Federal to State and local governments seems imminent. In November 2006, a USDA audit by the General Inspectors Office revealed that the majority of USFS suppression costs are directly linked to protection of private property in the WUI. Additionally, the audit found that USFS managers have "not renegotiated their agreements with State and local governments to apportion WUI protection responsibilities and costs as required; nor have the protection areas been redefined to reflect State and local governments' added responsibility which accompanies the growth in WUI private homes." The report recommended that the USFS renegotiate wildfire protection agreements as appropriate.² This potential shift in fire suppression costs can be mitigated and contained by reducing hazardous fuels in the wildland urban interface. This was one conclusion of the Strategic Issues Panel on Fire Suppression Costs, a diverse group of senior level managers and administrators from federal, state, and local governments who studied five years of cost reports and 300 prior cost containment recommendations. In suppression terms, the panel concluded that fewer firefighters are necessary in a WUI that has undergone a hazardous fuels reduction project. Fire suppression resources can then use "point of control" tactics that are shown to more efficiently utilize fire suppression resources.³ The net result of a hazardous fuels reductions project in the WUI is fires that are less costly to contain and extinguish and may be shorter in duration.

Fuels reduction projects have environmental benefits. During the fire seasons of 2005 and 2006 the number of acres burned by wildfire in Nevada equaled more than the total land area of Delaware and Rhode Island. These large and destructive fires open the door for noxious weed and exotic grass invasion: namely by cheatgrass and red brome. Exotic invaders are vigorous competitors that can convert a rich, diverse, and fire adapted mix of native trees, shrubs, and grasses to an undesirable, single species plant community that is highly susceptible to repeated fires and further site destruction. This situation is worsened by the expansion of the pinyon/juniper woodland and the dense, overgrown conditions that result. Into this fire prone environment enter people and their homes. The universal fire control policy, that people and homes come first, means that when ignition occurs, the protection of people, property and communities is the first consideration. As a result the priority for firefighting resource deployment has increasingly shifted from natural resource protection to community protection. This shift has substantially contributed to fires of increasing size and severity. As noted above, we are paying a very high price in real dollars. We are also paying additional costs in the alarming loss of Nevada's irreplaceable wildlife habitat, valuable watershed and recreation resources, and the vital foundation for Nevada's rural economy. We must reduce the fire fighting resources required to protect our communities and provide for a refocusing of resources in the protection of our rapidly dwindling natural resource base. This shift can only be accomplished by providing assistance for the initial removal and modification of hazardous fuels supported by a commitment to long-term fuels management strategies, attention to ignition resistant building practices, and wildfire focused building ordinance.

¹ Barnard, Jeff, *24 Firefighters Killed in '06 Wildfires*, Associated Press, The Oregonian, 02/20/07.

² U.S. Department of Agriculture, Office of Inspector General, *Audit Report – Forest Service Large Fire Suppression Costs*, Report No. 08-601-44-SF, November 2006.

³ Wildland Fire Leadership Council, *Report to the Wildland Fire Leadership Council from the Strategic Issues Panel on Fire Suppression Costs*, August 26, 2004

NVFSC Projects
SB 1, Sec. 28, 22nd Special Session
August 1, 2005 through September 15, 2007

| Community Chapter | County | Funding Sources | | | | Acres Treated | Biomass (est.) | Dry Hydrants |
|------------------------------|-------------|------------------------|--|-------------------------------|------------------------|---------------|----------------|--------------|
| | | State of Nevada | Other Grant Sources (BLM / NDF / USFS) | Homeowner / HOA Contributions | Total Funding | | | |
| Belmont | Nye | \$ 5,606.48 | \$ - | \$ 5,000.00 | \$ 10,606.48 | - | - | 2 |
| Cave Rock | Douglas | \$ 20,000.00 | \$ 124,800.00 | \$ 38,376.00 | \$ 183,176.00 | 50 | 180 | - |
| Chimney Rock | Douglas | \$ 59,634.33 | \$ 126,719.00 | \$ 33,692.00 | \$ 220,045.33 | 25 | 333 | - |
| Clear Creek | Carson City | \$ 26,509.77 | \$ 75,594.00 | \$ 61,138.00 | \$ 163,241.77 | 167 | 1016 | 1 |
| Eagle Ridge at Genoa | Douglas | \$ 21,826.15 | \$ - | \$ 38,575.00 | \$ 60,401.15 | 35 | 175 | - |
| Galena Forest 1 | Washoe | \$ 40,000.00 | \$ - | \$ 20,899.00 | \$ 60,899.00 | 39 | 160 | - |
| Galena Forest II | Washoe | \$ 83,100.65 | \$ - | \$ 47,089.00 | \$ 130,189.65 | 62 | 369 | - |
| Genoa | Douglas | \$ 20,500.00 | \$ 20,000.00 | \$ 24,113.00 | \$ 64,613.00 | 45 | 198 | - |
| Hidden Woods | Douglas | \$ 20,000.00 | \$ - | \$ 7,052.00 | \$ 27,052.00 | 8 | 24 | - |
| Holbrook | Douglas | \$ 7,463.37 | \$ 86,684.00 | \$ 44,939.00 | \$ 139,086.37 | 149 | 642 | - |
| Kings Canyon | Carson City | \$ 5,575.92 | \$ - | \$ 14,486.00 | \$ 20,061.92 | 20 | 80 | - |
| Lake Village | Douglas | \$ 33,500.00 | \$ 23,138.00 | \$ 14,100.00 | \$ 70,738.00 | 29 | 596 | - |
| Lakeview | Carson City | \$ 8,873.00 | \$ 14,503.00 | \$ 41,645.00 | \$ 65,021.00 | 28 | 86 | - |
| Logan Creek | Douglas | \$ 35,000.00 | \$ - | \$ 8,288.00 | \$ 43,288.00 | 6 | 52 | - |
| Mexican Dam - Pinyon Hills | Carson City | \$ 26,976.48 | \$ - | \$ 25,000.00 | \$ 51,976.48 | - | - | 2 |
| Mountain Springs | Clark | \$ 43,750.00 | \$ - | \$ 23,000.00 | \$ 66,750.00 | 50 | 494 | - |
| Mt. Charleston | Clark | \$ 123,800.88 | \$ 220,343.00 | \$ 32,024.00 | \$ 376,167.88 | 30 | 600 | - |
| Pinenut Creek | Carson City | \$ 12,632.90 | \$ 25,644.00 | \$ 10,000.00 | \$ 48,276.90 | 73 | 385 | 2 |
| Potosi Pines | Clark | \$ 46,250.00 | \$ - | \$ - | \$ 46,250.00 | 11 | 224 | - |
| R.O.W.E. | Elko | \$ 37,664.74 | \$ - | \$ 22,761.00 | \$ 60,425.74 | - | - | 3 |
| Round Hill | Douglas | \$ 23,208.15 | \$ 44,120.00 | \$ 27,639.00 | \$ 94,967.15 | 16 | 48 | - |
| Skyland | Douglas | \$ 32,000.00 | \$ 40,000.00 | \$ 135,100.00 | \$ 207,100.00 | 36 | 210 | - |
| Spring Creek | Elko | \$ 8,194.44 | \$ 34,902.00 | \$ 5,479.00 | \$ 48,575.44 | 220 | 1200 | - |
| Spring Valley/Double Springs | Douglas | \$ 13,714.73 | \$ - | \$ 13,263.00 | \$ 26,977.73 | - | - | 2 |
| Tyrollan Village | Washoe | \$ 20,000.00 | \$ - | \$ 10,399.00 | \$ 30,399.00 | 12 | 52 | - |
| Upper Kingsbury | Douglas | \$ 11,000.00 | \$ 45,000.00 | \$ 46,353.00 | \$ 102,353.00 | 26 | 80 | - |
| Virginia City Highlands | Storey | \$ 62,572.46 | \$ 16,077.00 | \$ 48,768.00 | \$ 127,417.46 | 190 | 711 | - |
| West Washoe | Washoe | \$ 67,078.56 | \$ 16,126.00 | \$ - | \$ 83,204.56 | 36 | 251 | - |
| Woodhills | Elko | \$ 1,796.05 | \$ 5,000.00 | \$ - | \$ 6,796.05 | - | - | 1 |
| Miscellaneous Projects | n/a | \$ 81,770.94 | \$ - | \$ - | | - | - | - |
| | | \$ 1,000,000.00 | \$ 918,650.00 | \$ 799,178.00 | \$ 2,636,057.06 | 1,363 | 8,166 | 13 |

Background. The historic community of Belmont, in central Nye County, became the 55th chapter of the Nevada Fire Safe Council (NVFSC) on September 28th, 2006. The Nye County Risk/Hazard Assessment, completed in January 2005, identified the community as at HIGH risk of catastrophic loss in a wildfire event. The assessment contained several recommendations for the Belmont community, including: (1) Defensible space within the community; (2) Establishing a fuelbreak around the perimeter of the community; and (3) Expansion of suppression resources. In Spring 2006, the Nevada Division of Forestry began the construction of the recommended fuel breaks. Using funds provided by the 2005 State of Nevada appropriation, the Belmont Chapter sought to increase suppression capacity by installing two dry hydrants in the community in Summer 2007.

| Belmont Project Summary | |
|-----------------------------|------------------------|
| Chapter Affiliation Date | September 28, 2006 |
| Wildfire Risk/Hazard Rating | HIGH |
| Chapter Members | 28 |
| Project Details | |
| Project Date | Summer 2007 |
| Dry Hydrant Capacity | 10,000 & 3,000 Gallons |
| State of Nevada Funding | \$ 5,606 |
| Chapter Contribution | \$ 5,000 |
| <i>Total Project Value:</i> | <i>\$10,606</i> |

The Project. Two used fuel oil tanks totaling 13,000 gallons were cleaned and sealed to meet EPA specifications for non-potable water storage, painted with rust-resistant paint, and placed in the ground in strategic locations in the Belmont community. The tanks are non-pressurized, require little maintenance, and have been retrofitted for use by USFS, BLM, and VFD equipment. A typical wildland fire brush tender carries 500 gallons of water, meaning it can refill up to 26 times using the new tanks. Funding for the project was provided with \$5,606 from the 2005 State of Nevada appropriation and \$5,000 in in-kind contributions provided by chapter volunteers.

Results. By placing two dry hydrants in their community, the Belmont Chapter has increased its infrastructure, thus decreasing the chance of the wildfire spreading uncontrolled to adjacent areas or homes. Additionally, fire safe educational materials regarding fire behavior, the role of fuels and fire safety in the wildland urban interface were provided to residents through the NVFSC quarterly and the UNR Cooperative Extension publication *Living With Fire*. The Chapter has secured additional funds from the Bureau of Land Management for fuels reduction work in 2008.

Background. The Lake Tahoe community of Cave Rock, located along Highway 50 in Douglas County, became the 19th chapter of the Nevada Fire Safe Council (NVFSC) on June 10, 2004. The County Risk/Hazard Assessment completed for the Tahoe Douglas Fire Protection District in July 2004 identified the community as at HIGH risk for catastrophic loss in the event of a wildfire and observed that only ten percent of homes had adequate defensible space. The assessment contained recommendations for the community that called for: (1) Removal and thinning of adjacent USFS lands to reduce fuel loading and increase forest health and (2) defensible space and fuel reduction treatments on all private property. Using funds provided by the 2005 State of Nevada appropriation, the Cave Rock Chapter of the Nevada Fire Safe Council sought to work on priority (2).



Above: Crews chipping hazardous fuels being chipped during the Cave Rock project. Below: A large diameter tree being lifted by crane.



Cave Rock Project Summary

| | |
|---------------------------------|-------------------------|
| Chapter Affiliation Date | June 10, 2004 |
| Wildfire Risk/Hazard Rating | HIGH |
| Chapter Members | 179 |
| Project Details | |
| Project Date | Summer 2006 - Fall 2007 |
| Acres Treated | 50 |
| Biomass removed (est.) | 180 tons |
| State of Nevada Funding | \$ 20,000 |
| NDF - USDA WUI Assistance Grant | \$ 124,800 |
| Chapter Contributions | \$ 38,376 |
| Total Project Value: | \$ 183,176 |

The Project. Fuels were marked for removal on private properties in the Cave Rock community with cooperation between property owners and the Tahoe Douglas Fire Protection District. Fuels reduction included the removal or hand thinning of brush understory to decrease fire intensity and reduce ladder fuels. Trees deemed to be a fire hazard pursuant to TRPA tree marking guidelines were removed. Funding for the project was provided by \$20,000 from the 2005 State of Nevada appropriation, \$124,800 a NDF/USDA WUI Assistance Grant, \$38,176 in Chapter Contributions and a contribution from the Cave Rock General Improvement District.

Results. The fire threat has been reduced and community protection increased by an overall reduction of fuel volume, the removal of ladder fuels, a reduction of stand density, and an increase in tree crown spacing. 50 acres were treated by removing large diameter trees, ladder fuels and other flammable materials totaling 180 tons within the near home environment. Additionally, fire safe educational materials regarding fire behavior, the role of fuels and fire safety in the wildland urban interface were provided to residents through the NVFSC quarterly and the UNR Cooperative Extension publication *Living With Fire*. The Cave Rock Chapter also held a demonstration day, where members of the community were invited to meet with Tahoe Douglas Fire Protection district personnel to learn how best management practices for defensible space can be implemented on private property.

Background. The Lake Tahoe community of Chimney Rock, located along Highway 207 in Douglas County, became the 23rd chapter of the Nevada Fire Safe Council (NVFSC) on September 10, 2004. The County Risk/Hazard Assessment completed for the Tahoe Douglas Fire Protection District in July 2004 identified the community as at EXTREME risk of catastrophic loss in the event of a wildfire and observed that only six percent of homes had adequate defensible space. The assessment contained recommendations for the community that called for: (1) Removal and thinning of adjacent USFS lands to reduce fuel loading and increase forest health and (2) defensible space and fuel reduction treatments on all private property. Using funds provided by the State of Nevada, the Chimney Rock Chapter of the Nevada Fire Safe Council sought to work on priority (2).

| <u>Chimney Rock Project Summary</u> | |
|-------------------------------------|-------------------|
| Chapter Affiliation Date | Sept. 10, 2004 |
| Wildfire Risk/Hazard Rating | EXTREME |
| Chapter Members | 313 |
| Project Details | |
| Project Date | Summer-Fall 2006 |
| Acres Treated | 25 |
| Biomass removed (est.) | 333 tons |
| State of Nevada Funding | \$ 59,634 |
| USFS California Clearinghouse Grant | \$ 100,000 |
| NDF - USDA WUI Assistance Grant | \$ 26,719 |
| Chapter Contributions | \$ 33,692 |
| Total Project Value: | \$ 220,045 |

The Project. Fuels were marked for removal on 73 properties with the cooperation between property owners and the Tahoe Douglas Fire Protection District. Fuels reduction included the removal or hand thinning of brush understory to decrease fire intensity and reduce ladder fuels. Trees deemed to be a fire hazard pursuant to TRPA tree marking guidelines were removed. Funding for the project was provided by \$59,386 from the 2005 State appropriation, \$100,000 from a USFS California Clearinghouse Grant, \$26,719 from a NDF/USDA WUI Assistance Grant, and \$33,692 in Chapter Contributions. 1,100 acres were treated in parallel efforts by federal agencies.



Left: A Chimney Rock property prior to removal of hazardous fuels and the creation of defensible space.



Right: The same house after fuels treatment and the creation of defensible space.

Results. The fire threat has been reduced and community protection increased by an overall reduction of fuel volume, the removal of ladder fuels, a reduction of stand density, and an increase in tree crown spacing. 25 acres on 73 parcels were treated. 795 large diameter trees, ladder fuels and other flammable materials totaling 333 tons within the near home environment were removed. Additionally, fire safe educational materials regarding fire behavior, the role of fuels and fire safety in the wildland urban interface were provided to residents through the NVFSC quarterly and the UNR Cooperative Extension publication *Living With Fire*. The Chimney Rock Chapter also held a demonstration day, where members of the community were invited to meet with Tahoe Douglas Fire Protection district personnel to learn how best management practices for defensible space can be implemented on private property.

Background. Clear Creek, located southwest of Carson City, became the third chapter of the Nevada Fire Safe Council (NVFSC) on July 12, 2002. The Carson City Risk/Hazard Assessment, completed in January 2005, identified the community as at HIGH risk of catastrophic loss in the event of a wildfire. The Clear Creek Chapter had been the recipient of Nevada Division of Forestry (NDF) grants in the past, including a 2003 grant for \$116,700 for fuels reduction work that was administered by NVFSC on behalf of the chapter. The assessment contained several recommendations for the community, including the creation and maintenance fuel breaks, fuels reduction work on private properties and increasing suppression capacity. Using funds appropriated in 2005 by the State of Nevada and two NDF grants, the Clear Creek Chapter of the Nevada Fire Safe Council sought to implement these recommendations.



Above: Area of Clear Creek fuelbreak prior to mastication.



Above: Area of Clear Creek fuelbreak after mastication.

Clear Creek Project Summary

| | |
|---------------------------------------|---------------------------|
| Chapter Affiliation Date | July 12, 2002 |
| Wildfire Risk/Hazard Rating | HIGH |
| Chapter Members | 24 |
| Project Details | |
| Project Date | Summer 2005 – Summer 2007 |
| Acres Treated (Fuels reduction) | 160 |
| Acres Treated (Herbicide treatment) | 7 |
| Biomass removed or modified (est.) | 1016 tons |
| Dry Hydrant Capacity | 10,000 gallons |
| State of Nevada Funding (Herbicide) | \$ 4,133 |
| State of Nevada Funding (Dry hydrant) | \$ 8,287 |
| State of Nevada Funding (Fuels red.) | \$ 9,956 |
| NDF Grants (fuels reduction) | \$ 75,594 |
| Chapter Contributions | \$ 61,138 |
| Total Project Value: | \$159,117 |

The Project. In summer 2005, using grant funds secured from NDF, a 80 acre fuel break was constructed in the Clear Creek community using a rubber-tracked vehicle equipped with a Fecon mastication power head and a 4x4 tractor with a brush mower. In January 2006, the pre-emergent herbicide Plateau® was applied to the firebreak using \$4,133 from the 2005 State of Nevada appropriation. In fall 2006, the chapter installed a 10,000-gallon dry hydrant tank to add suppression capacity for the community. Additionally, a private swimming pool was retrofitted to provide additional water capacity. The \$9,119 cost of the dry hydrant was paid for by the 2005 State of Nevada appropriation. In 2007, four additional acres were treated using State of Nevada funds at a cost of \$9,956. Chapter contributions were valued at \$61,138.

Results. The fire threat to the community has been reduced and community protection increased through the creation and maintenance of a fuelbreak and the addition of suppression infrastructure. A total of 160 acres were treated and 1016 tons of biomass removed. In Fall 2006, an examination of sites treated with herbicides indicated some success, primarily where growth was not in excess of two inches. Fire safe educational materials regarding fire behavior, the role of fuels and fire safety in the wildland urban interface were provided to residents through the NVFSC quarterly and the UNR Cooperative Extension publication Living With Fire.

Background. Eagle Ridge at Genoa, located just north of Genoa in Douglas County, became the 27th chapter of the Nevada Fire Safe Council (NVFSC) on July 27, 2005. The Douglas County Risk/Hazard Assessment, completed in February 2005, identified the community as at HIGH RISK of catastrophic loss in the event of wildfire. The assessment contained three recommendations for the community: (1) Construct and maintain shaded fuel breaks and defensible space within and throughout the community, with a 400' fuel break along Foothill road; (2) Create adequate defensible space on residential parcels throughout the private lands; and (3) Coordinate projects with East Fork Fire District and USFS for fuels reduction projects on private lands adjacent to public land. Using funds provided by the 2005 State of Nevada appropriation, the Nevada Fire Safe Council and the Eagle Ridge at Genoa Chapter sought to work on the first recommended priority.



Above: Rubber-tracked vehicle with Fecon mastication power head at work in the Eagle Ridge Chapter. Below: Completed fuel break.



Eagle Ridge at Genoa Project Summary

| | |
|---------------------------------|---------------------------|
| Chapter Affiliation Date | July 27, 2005 |
| Wildfire Risk/Hazard Rating | HIGH |
| Chapter Members | 4 |
| Project Details | |
| Project Date | Winter 2005 - Summer 2006 |
| Acres - Fuels Reduction | 35 |
| Acres - Herbicide application | 8 |
| Biomass removed (est.) | 175 tons |
| State of NV Funding (fuels) | \$ 18,278 |
| State of NV Funding (Herbicide) | \$ 3,548 |
| Chapter Contribution | \$ 38,575 |
| Total Project Value: | \$ 60,401 |

The Project. In December 2005, the pre-emergent herbicide Plateau® was applied to an existing 8-acre fuel break for purposes of cheatgrass control. The area was then seeded with a fire-resistant perennial grass species. In the spring of 2006, a new 15-acre fuel break was created on the East side of the community with a rubber-tracked vehicle equipped with a Fecon mastication power head. 13 acres in the interior of the community were also treated in the same fashion. As part of the required grant match, the developer of the Eagle Ridge community constructed a 7-acre west side fuel break. Funding for the project was provided by \$21,828 from the State of Nevada appropriation and matched by \$38,575 in contributions provided by the Eagle Ridge at Genoa Chapter.

Results. The use of the pre-emergent herbicide plateau to control cheat grass was successful at an applied rate of 8 ounces per acre. The fire threat has been reduced and community protection increased by the construction of fire breaks on both the East and west sides of the community. An estimated 175 tons of biomass were masticated on 35 acres. Additionally, fire safe educational materials regarding fire behavior, the role of fuels and fire safety in the wildland urban interface were provided to residents through the NVFSC quarterly and the UNR Cooperative Extension publication *Living With Fire*.

Background. Galena Forest I, located on the Mt. Rose Highway (Hwy 431) corridor in Washoe County, became the sixth chapter of the Nevada Fire Safe Council (NVFSC) on July 23, 2002. The Washoe County Risk/Hazard Assessment, completed in June 2005, identified the community as at EXTREME risk for catastrophic loss in a wildfire event. The assessment concluded with four recommendations for the community: (1) community education; (2) defensible space and fuel reduction treatment on private property; (3) fuel reduction treatment on Galena community parcels and Washoe County property; and (4) construction of a shaded fuel break around the community perimeter that links with adjacent fuels reduction projects. Using funds provided by the 2005 State of Nevada appropriation, the Nevada Fire Safe Council and the Galena I Chapter sought to work on priorities (1) and (4).



Above: an area where mastication has taken place adjacent to an area where no treatment has occurred. Below: A portion of the completed fuel break. Ladder fuels have been removed and brush fuels have been removed or masticated.



| Galena Forest I Project Summary | |
|---------------------------------|------------------|
| Chapter Affiliation Date | July 23, 2002 |
| Wildfire Risk/Hazard Rating | EXTREME |
| Chapter Members | 72 |
| Project Details | |
| Project Date | Summer 2006 |
| Acres Treated | 39 |
| Biomass removed (est.) | 160 |
| State of Nevada Funding | \$ 40,000 |
| Chapter Contribution | \$ 20,899 |
| Total Project Value: | \$ 60,899 |

The Project. A shaded fuel break, intended to stop or slow an advancing wildfire, was created adjacent to the community on property owned in common by Galena HOA members. A hand crew was hired to thin brush and remove ladder fuels and a contractor was hired for mastication work in brush fields. Slash was removed by hand and loaded into trash dumpsters for disposal or eliminated through mastication. The fuel break was created within 1000' of existing roads so that materials could be easily removed. This allowed for some cost savings in an area with very steep slopes. A total of 39 acres were treated and 160 tons of biomass removed or converted. Funding for the project was provided by \$40,000 from the 2005 State of Nevada appropriation and match by Galena Chapter contributions valued at \$20,899.

Results. By creating a fuelbreak, the fire threat to the Galena I Chapter has been reduced and community protection increased. Throughout the fuelbreak area, there has been an overall reduction in fuel volume, ladder fuels have been removed, stand density has been reduced and tree crown spacing has been increased. Additionally, fire safe educational materials regarding fire behavior, the role of fuels and fire safety in the wildland urban interface were provided to residents through the NVFSC quarterly and the UNR Cooperative Extension publication *Living With Fire*.

Background. Galena Forest II, located on the Mt. Rose Highway corridor in Washoe County, became the 29th chapter of the Nevada Fire Safe Council (NVFSC) on May 27, 2005. The Washoe County Risk/Hazard Assessment, completed in June 2005, identified the community as at EXTREME risk of catastrophic loss in the event of a wildfire. The assessment concluded with four recommendations for the community: (1) community education; (2) defensible space and fuel reduction treatment on private property; (3) fuel reduction treatment on community parcels and Washoe County property; and (4) construction of a shaded fuel break around the community perimeter that links with adjacent fuels reduction projects. Using funds provided by the 2005 State of Nevada appropriation, the Galena II Chapter of the Nevada Fire Safe Council sought to work on priorities (1) and (4).

| Galena Forest II Project Summary | |
|----------------------------------|-------------------|
| Chapter Affiliation Date | May 27, 2005 |
| Wildfire Risk/Hazard Rating | EXTREME |
| Chapter Members | 6 |
| Project Details | |
| Project Date | Summer 2006 |
| Acres Treated | 62 |
| Biomass removed (est.) | 369 |
| State of Nevada Funding | \$ 83,101 |
| Chapter Contribution | \$ 47,089 |
| Total Project Value: | \$ 130,190 |

The Project. A shaded fuel break, intended to stop or slow an advancing wildfire, was created adjacent to the community on property owned in common by Galena HOA members. 62 acres were treated and 369 tons of biomass were removed. Funding for the project was provided by \$83,101 from the 2005 State appropriation. To meet their match requirement, 56 residents hired landscaping crews for fuels reduction on individually owned lots, resulting in a Chapter contribution valued at \$47,069.



Above left: Chapter volunteers in project area prior to project. Above right: Slash pile slated for removal.

Results. By creating a fuelbreak, the fire threat to the Galena II Chapter has been reduced and community protection increased. Throughout the fuelbreak area, there has been an overall reduction in fuel volume, ladder fuels have been removed, stand density has been reduced and tree crown spacing has been increased. On 56 individual properties, the risk of fire spreading into the near home environment and igniting homes has decreased. Additionally, fire safe educational materials regarding fire behavior, the role of fuels and fire safety in the wildland urban interface were provided to residents through the NVFSC quarterly and the UNR Cooperative Extension publication Living With Fire.

Background. The community of Genoa, located in Douglas County on the west side of Carson Valley, became the 46th chapter of the Nevada Fire Safe Council on February 23, 2006. The Douglas County Risk/Hazard Assessment, completed in March 2005, identified the community as at HIGH risk for catastrophic loss in the event of a wildfire. The assessment had four recommendations for the community: (1) Defensible space and fuel reduction treatment on private property; (2) Development of a fuels reduction program; (3) Development of a west side community fuelbreak; and (4) Community education. Using funds provided by the 2005 State of Nevada appropriation and grants secured through the Nevada Division of Forestry, the Genoa Chapter of the Nevada Fire Safe Council sought to work on all four priorities.

Genoa Project Summary

| | |
|---------------------------------|-------------------------|
| Chapter Affiliation Date | February 23, 2006 |
| Wildfire Risk/Hazard Rating | HIGH |
| Chapter Members | 49 |
| Project Details | |
| Project Date | Summer 2006 – Fall 2007 |
| Acres Treated | 45 |
| Biomass removed (est.) | 198 tons |
| State of Nevada Funding | \$ 20,500 |
| NDF – USDA WUI Assistance Grant | \$ 20,000 |
| Chapter Contributions | \$ 24,113 |
| Total Project Value: | \$ 64,613 |



Above: Community biomass pile prior to being converted to ground chips for dust control mitigation. Below: A tub grinder converting raw biomass to ground chips. Approximately 100 tons of hazardous fuels were treated in ...



The Project. To facilitate defensible space and fuel reduction on private property, the chapter provided a site for people to drop off biomass free of charge. The collected materials were ground into chips by a contractor and spread by the chapter members and the Genoa Volunteer Fire Department for dust control. The Chapter also began work with the NDF on a 1/2-mile long west side fuelbreak. The fuelbreak was created within 1000' of existing roads so that materials could be easily removed. This allowed for some cost savings in areas with steep slopes. Funding for the project was provided by \$20,500 from the 2005 State of Nevada appropriation and an NDF grant of \$20,000. The Genoa community contribution, including in-kind contributions from chapter volunteers and the Genoa VFD, was valued at \$24,113.

Results. The program designed for fuels removal from private property was successful. It was convenient for residents, saved dumping fees, reduced the amount of open burning and saved landfill space. The community as a whole benefited from utilization of chips for dust control during the annual Candy Dance festival, which draws in excess of 50,000 people. A large portion of the west side fuel break was completed. These projects will continue in the spring of 2008 with an NDF WUI Assistance grant secured in Fall 2007. Additionally, fire safe educational materials regarding fire behavior, the role of fuels and fire safety in the wildland urban interface were provided to residents through the NVFSC quarterly and the UNR Cooperative Extension publication *Living With Fire*.

Background. The Lake Tahoe community of Hidden Woods, located in Douglas County, became the 11th chapter of the Nevada Fire Safe Council (NVFSC) on September 12, 2002. The County Risk/Hazard Assessment completed for the Tahoe Douglas Fire Protection District, completed in July 2004, identified the community as at HIGH risk for catastrophic loss in the event a wildfire. The assessment contained several recommendations for the community: (1) thinning of brush, small trees, and dead and dying trees; and (2) defensible space and fuel reduction treatment on private property. Using funds provided by the 2005 State of Nevada appropriation, the Hidden Woods Chapter of the Nevada Fire Safe Council sought to work in the near home environment on priority (2).

Hidden Woods Project Summary

| | |
|-----------------------------|-------------------------|
| Chapter Affiliation Date | Sept. 12, 2002 |
| Wildfire Risk/Hazard Rating | HIGH |
| Chapter Members | 96 |
| Project Details | |
| Project Date | Summer 2006 - Fall 2007 |
| Acres Treated | 8 |
| Biomass removed | 24 tons |
| State of Nevada Funding | \$ 20,000 |
| Chapter Contributions | \$ 7,052 |
| Total Project Value: | \$ 27,052 |



Above: A home in Hidden Woods prior to defensible space treatment. Below: The same home after defensible home treatment.



The Project. The Hidden Woods fuels reduction project consists primarily of thinning below the overstory. Smaller trees and brush are removed. Dead standing trees, trees heavily infected with dwarf mistletoe and down woody fuels are also removed. Larger more dominant trees are not removed from the project area. Funding for the project was provided by \$ 20,000 from the 2005 State of Nevada appropriation. The Hidden Woods Chapter contribution was valued at \$5,752.

Results. Eight acres were treated and 24 tons of biomass modified or removed. Additionally, fire safe educational materials regarding fire behavior, the role of fuels and fire safety in the wildland urban interface were provided to residents through the NVFSC quarterly and the UNR Cooperative Extension publication *Living With Fire*. The Hidden Woods Chapter also held a demonstration day, where members of the community were invited to meet with Tahoe Douglas Fire Protection District personnel and NVFSC Staff to learn how Best Management Practices for defensible space can be implemented on private property. In fall 2007, the Hidden Woods chapter continued defensible space work through additional funds secured from the Nevada Division of Forestry's WUI Assistance grant program.

Background. Holbrook, located in southern Douglas County at the intersection of Highways 395 and SR 208, became the 18th chapter of the Nevada Fire Safe Council (NVFSC) on October 31, 2003. The community has several fuel breaks in place, including a west-side project administered by NVFSC and funded by the Bureau of Land Management (BLM) in the fall of 2005. The Douglas County Risk/Hazard Assessment, completed in March 2005, identified the community as at HIGH risk of catastrophic loss in the event of a wildfire. The assessment contained several fuels reduction recommendations for the community, including: (1) Construction of additional fuelbreaks and (2) Defensible space and fuels reduction treatment on private properties. Using funds provided by the 2005 State of Nevada appropriation and a second grant from the BLM, the Holbrook Chapter of the Nevada Fire Safe Council sought to implement both recommendations.

The Project. In January 2006, the pre-emergent herbicide Plateau® was applied to an existing firebreak on the east side of the community using \$3,755 from the 2005 State of Nevada appropriation. The purpose of the herbicide application is to control the growth and establishment of cheatgrass. In November 2006, contract mastication crews completed the northeast perimeter community fuelbreak. Throughout this time period, residents continued to reduce fuel loading on private properties within the community and transported all biomass to a central location. The pile of accumulated fuel was masticated in the fall of 2007. The community also began fuels reduction work on larger interior lots in fall 2007. The Holbrook chapter community contribution for the reporting period is valued at \$44,939.

| Holbrook Project Summary | |
|----------------------------------|---------------------------|
| Chapter Affiliation Date | October 31, 2003 |
| Wildfire Risk/Hazard Rating | HIGH |
| Chapter Members | 43 |
| Project Details | |
| Project Date | Winter 2005 – Summer 2007 |
| Acres Treated (Herbicide) | 13 |
| Acres Treated (fuels reduction) | 136 acres |
| Biomass removed (est.) | 642 tons |
| State of NV Funding (Herbicide) | \$ 3,755 |
| State of NV Funding (Fuels red.) | \$ 3,709 |
| BLM Funding (Fuels red.) | \$ 78,705 |
| NDF – USDA WUI Assistance | \$ 7,979 |
| Chapter Contribution | \$ 44,939 |
| Total Project Value: | \$ 139,087 |



Left: Application of pre-emergent herbicides on a firebreak in the Holbrook community. Right: One year after pre-emergent herbicide treatment, the firebreak showed a significant lack of cheatgrass germination.

Results. The fire threat to the Holbrook community has been reduced and community protection increased through the creation and maintenance of a fuelbreak. Using a combination of BLM funds and State of Nevada funds, a total of 136 acres were treated and 642 tons of biomass were removed. In 2006, an examination of sites treated with herbicides indicated success, primarily where growth was not in excess of two inches. Additionally, fire safe educational materials regarding fire behavior, the role of fuels and fire safety in the wildland urban interface were provided to residents through the NVFSC quarterly and the UNR Cooperative Extension publication *Living With Fire*. In December 2006, the Holbrook chapter worked with UNR Cooperative Extension educators to hold a seminar for residents who were interested in 'firescaping' their near home environment with fire resistant plant species. 32 people, including some from the Smith Valley and Spring Valley/Double Springs chapters, were in attendance. Fuels reduction work is continuing in the community at this time using funds secured through the Nevada Division of Forestry's wildland-urban interface assistance program.

Background. The Kings Canyon Community, located just west of Carson City, became the 31st chapter of the Nevada Fire Safe Council (NVFSC) on June 16, 2005. The Carson City Risk/Hazard Assessment, completed in December 2004, identified the Carson City community as at MODERATE TO HIGH risk of catastrophic loss in the event of a wildfire, but noted, "some of the smaller neighborhoods and subdivisions would likely fall into the HIGH or EXTREME hazard categories if assessed separately." This assessment was made *prior* to the July 2005 Waterfall Fire, which destroyed 31 homes (10 in Kings Canyon) and three emergency vehicles. The assessment recommended a fuel break on the west side of the community, but most of these fuels were consumed in the Waterfall Fire. Using funds provided by the 2005 State of Nevada appropriation, the Kings Canyon Chapter of the Nevada Fire Safe Council sought to mitigate potential cheat grass invasion on recently burned lands and reduce residual unburned heavy fuels along the fuel break.

Kings Canyon Project Summary

| | |
|--------------------------------|-----------------|
| Chapter Affiliation Date | June 16, 2005 |
| Wildfire Risk/Hazard Rating | Moderate-High |
| Chapter Members | 34 |
| Project Details | |
| Project Date | Summer 2006 |
| Acres Treated | 20 |
| Biomass removed/modified (est) | 80 tons |
| State of Nevada Funding | \$5,576 |
| Chapter Contribution | \$14,486 |
| Total Project Value: | \$20,062 |



Above: Waterfall Fire, July 14, 2005

The Project. Contract crews were hired to mow and use hand-held weed-eaters in the area where invasive species were occurring. A small unburned area was treated using rubber tracked equipment with a Fecon mastication head. Funding for the project was provided by \$5,576 from the 2005 State of Nevada appropriation. Chapter members living in the recently burned area contributed countless hours in education and rehabilitation, matching the grant with in-kind contributions valued at \$14,486. Many education and outreach sessions for residents of the recently burned area were held in cooperation with UNR Cooperative Extension.

Results. The future fire threat has been reduced and community protection increased by fuels reduction. A total of 20 acres were treated and 80 tons of biomass removed. Additionally, fire safe educational materials regarding fire behavior, the role of fuels and fire safety in the wildland urban interface were provided to residents through the NVFSC quarterly and the UNR Cooperative Extension publication *Living With Fire*. It is hoped that awareness in the Kings Canyon community has been raised and that the fuel break will be maintained by the community in the future.



Above: Kings Canyon community following the July 2005 Waterfall fire.

Background. The Lake Tahoe community of Lake Village, located in Douglas County, became the 20th chapter of the Nevada Fire Safe Council (NVFSC) on June 14, 2004. The County Risk/Hazard Assessment completed for the Tahoe Douglas Fire Protection District in July 2004 identified the community as at MODERATE TO HIGH risk for catastrophic loss in the event of a wildfire. An overstocked pine overstory and brush understory, combined with disease, insect attacks and drought have created dead standing and down fuels, compounding the hazardous fuel condition. For the community, the assessment recommended removing or thinning brush understory to lower fire intensity and reduce ladder fuels, either by hand or by mastication equipment in areas with a slope < 30%. Using funds provided by the 2005 State of Nevada appropriation and a Nevada Division of Forestry WUI Assistance Grant, the Lake Village Chapter of the Nevada Fire Safe Council sought to implement these recommendations.

| <u>Lake Village Project Summary</u> | |
|-------------------------------------|-----------------------|
| Chapter Affiliation Date | June 14, 2004 |
| Wildfire Risk/Hazard Rating | MODERATE TO HIGH |
| Chapter Members | 290 |
| Project Details | |
| Project Date | Summer 2006 – Present |
| Acres Treated | 29 |
| Biomass removed (est.) | 596 tons |
| State of Nevada Funding | \$ 33,500 |
| NDF – USDA WUI Assistance Grant | \$ 23,138 |
| Chapter Contributions | \$ 14,100 |
| <i>Total Project Value:</i> | <i>\$ 70,738</i> |

The Project. Fuels were marked for removal on private properties with the cooperation of property owners and the Tahoe Douglas Fire Protection District. Fuel reduction included the removal or hand thinning of brush understory to decrease fire intensity and reduction of ladder fuels. Trees deemed to be a fire hazard pursuant to TRPA tree marking guidelines were removed. Funding for the first two of four phases of the project was provided by \$30,000 from the 2005 State of Nevada appropriation. The phases three and four, currently underway, are being funded by a \$60,000 grant from the Nevada Division of Forestry. For this reporting period, the chapter contribution was valued at \$14,101.

Results. The fire threat has been reduced and community protection increased by an overall reduction of fuel volume, the removal of ladder fuels and a reduction of stand density. 29 acres have been treated according to best management practices for defensible space and 596 tons for hazardous fuel were removed. Additionally, fire safe educational materials regarding fire behavior, the role of fuels and fire safety in the wildland urban interface were provided to residents through the NVFSC quarterly and the UNR Cooperative Extension publication *Living With Fire*.

Background. Lakeview, a subdivision located in northwest Carson City, became the 26th chapter of the Nevada Fire Safe Council (NVFSC) on March 16, 2005. The Carson City Risk/Hazard Assessment, completed in December 2004, identified the Carson City community as at MODERATE TO HIGH risk of catastrophic loss, but noted, "some of the smaller neighborhoods and subdivisions would likely fall into the HIGH or EXTREME hazard categories if assessed separately." This assessment was made prior to the July 2005 Waterfall Fire, which destroyed 31 homes and three emergency vehicles in July. The fire was eventually stopped at an existing fuelbreak south of the Lakeview community, illustrating the importance of fuels reduction in the wildland urban interface communities. The assessment recommended: (1) A fuelbreak on the east side of the community; (2) Removal of interior fuels on the north side of the community; and (3) Treatment to address cheatgrass growth in the south fuel break. Using a combination of state and federal funds, the chapter is implementing these recommendations.



Above: Cheatgrass reappeared on the fuelbreak north of Lakeview, indicating the need for future maintenance by mowing or herbicide application. Below: Defensible space work to remove overgrown fuels within the Lakeview community.



Lakeview Project Summary

| | |
|-----------------------------|-----------------------|
| Chapter Affiliation Date | March 16, 2005 |
| Wildfire Risk/Hazard Rating | Moderate/High |
| Chapter Members | 56 |
| Project Details | |
| Project Date | Summer 2006 - Present |
| Acres Treated | 28 |
| Biomass removed (est.) | 86 tons |
| State of Nevada Funding | \$8,873 |
| NDF - USDA WUI Assistance | \$14,503 |
| Chapter Contribution | \$41,645 |
| Total Project Value: | \$65,021 |

The Project. Initially, a contractor using tractor-mounted mowing equipment was hired to reduce fuels on 20 acres. However, the steep and unstable terrain forced the crew to finish the work using hand-held weed eaters. Funding for the project was provided by \$8,873 from the 2005 State of Nevada appropriation. A grant secured from the Nevada Division of Forestry in Spring 2007 was used to reduce hazardous fuels from the interior of the community, and a second NDF grant secured in Fall 2007 is now being utilized to apply the pre-emergent herbicide Plateau® to control cheatgrass on the community fuelbreak. Chapter members contributed cash and countless hours in educational seminars and on rehabilitation that were valued at \$41,645 during the reporting period.

Results. The future fire threat to the Lakeview community has been reduced and community protection increased by fuels reduction and education. A total of 28 acres have been treated and 86 tons of biomass have been modified or removed. Additionally, fire safe educational materials regarding fire behavior, the role of fuels and fire safety in the wildland urban interface were provided to residents through the NVFSC quarterly and the UNR Cooperative Extension publication *Living With Fire*. It is hoped that awareness in the Lakeview community has been raised and that the community will maintain the fuel break in the future.

Background. The Lake Tahoe community of Logan Creek, located along Highway 50 in Douglas County, became the 40th chapter of the Nevada Fire Safe Council (NVFSC) on November 3rd 2005. The Douglas County Risk/Hazard Assessment completed for the Tahoe Douglas Fire Protection District, completed in July 2004, identified the community as at HIGH risk of catastrophic loss in the event of wildfire. Fuels are heavy in the community, estimated at six to eight tons per acre. The tree canopy is closed and the composition of the fuels is conducive to crown fires or high intensity surface fires. There are continuous fuels in close proximity to structures. The assessment contained two recommendations for the community: (1) Remove or thin brush understory and remove ladder fuels on private properties in the community interior; and (2) create a fuel break between the community and highway 50. Using funds provided by the 2005 State of Nevada appropriation, the Logan Creek Chapter of the Nevada Fire Safe Council sought to work on priority (1).

Logan Creek Project Summary

| | |
|-----------------------------|------------------|
| Chapter Affiliation Date | November 3, 2005 |
| Wildfire Risk/Hazard Rating | HIGH |
| Chapter Members | 31 |
| Project Details | |
| Project Date | Summer 2006 |
| Acres Treated | 6 |
| Biomass removed (est.) | 52 tons |
| State of Nevada Funding | \$ 35,000 |
| Chapter Contributions | \$ 8,288 |
| Total Project Value: | \$ 43,288 |

The Project. Fuels were marked for removal on private properties with the cooperation of property owners and the Tahoe Douglas Fire Protection District. Fuel reduction included the removal or hand thinning of brush understory to decrease fire intensity and reduction of ladder fuels. Trees deemed to be a fire hazard pursuant to TRPA tree marking guidelines were removed. Funding for the project was provided by \$35,000 from the 2005 State of Nevada appropriation. The chapter contribution was valued at \$8,288.

Results. The fire threat has been reduced and community protection increased by an overall reduction of fuel volume, the removal of ladder fuels and a reduction of stand density. 52 tons of fuels on six acres were removed. This included 111 small and large-diameter trees. Additionally, fire safe educational materials regarding fire behavior, the role of fuels and fire safety in the wildland urban interface were provided to residents through the NVFSC quarterly and the UNR Cooperative Extension publication *Living With Fire*. An additional grant secured from the Nevada Division of Forestry's WUI Assistance program in Fall 2007 has allowed the community to continue hazardous fuels reduction work within the community.



Above: Removal of a large diameter tree marked as a fire hazard by the Tahoe Douglas Fire Protection District in accordance with TRPA timber removal guidelines

Background. The Mexican Dam / Pinion Hills community, located southeast of Carson City, became the 28th chapter of the Nevada Fire Safe Council (NVFSC) on May 26, 2005. The Carson City Risk/Hazard Assessment, completed in January 2005, identified the community as at MODERATE TO HIGH risk of catastrophic loss in a wildfire event. The assessment contained two primary recommendations for the Mexican Dam / Pinion Hills area: (1) Maintenance of existing fuelbreaks; and (2) Expansion of suppression resources. In Spring 2005, the Bureau of Land Management and the Carson City Fire Department began the construction of the recommended fuelbreaks. Using funds provided by the 2005 State of Nevada appropriation, the Mexican Dam/Pinion Hills Chapter sought to work on priority (2).

Mexican Dam / Pinion Hills Project Summary

| | |
|-----------------------------|--------------------------|
| Chapter Affiliation Date | May 26, 2005 |
| Wildfire Risk/Hazard Rating | Moderate- High |
| Chapter Members | 15 |
| Project Details | |
| Project Date | Spring 2006, Spring 2007 |
| Dry Hydrant Capacity | 10,000 gallons ea. |
| State of Nevada Funding | \$26,976 |
| Chapter Contribution | \$25,000 |
| Total Project Value: | \$31,976 |



Above: Installation of a 10,000-gallon dry hydrant in the Pinion Hills neighborhood. Below: The nearly finished product, prior to landscaping.



The Project. Two used 10,000-gallon tanks were cleaned and sealed to meet EPA specifications for non-potable water storage, painted with rust-resistant paint, and placed in the ground in strategic locations in the Pinion Hills neighborhood. The tanks are non-pressurized, require little maintenance, and have been retrofitted for use by USFS, BLM, and Carson City Fire Department equipment. A typical wildland fire brush tender carries 500 gallons of water, meaning it can refill up to 40 times using the new tanks. Funding for the project was provided with \$26,976 from the 2005 State of Nevada appropriation and \$25,000 in cash and in-kind contributions provided by the Mexican Dam/Pinion Hills Chapter.

Results. By placing two 10,000 gallon dry hydrants in their community, the Mexican Dam / Pinion Hills Chapter has increased its infrastructure, thus decreasing the chance of the wildfire spreading uncontrolled to adjacent areas or homes. Additionally, fire safe educational materials regarding fire behavior, the role of fuels and fire safety in the wildland urban interface were provided to residents through the NVFSC quarterly and the UNR Cooperative Extension publication *Living With Fire*.

Background. The Mountain Springs community, located at the south end of the Spring Mountain Range in Clark County, became the 42nd chapter of the Nevada Fire Safe Council (NVFSC) on November 9, 2005. The Clark County Risk/Hazard Assessment, completed in June 2005, identified the community as at EXTREME risk for catastrophic loss in the event of a wildfire. The assessment recommended a fire safe education for all residents of the community and hazardous fuel treatments on all private properties in accordance with *Living with Fire* guidelines for defensible space. Using funds provided by the 2005 State of Nevada appropriation, the Mountain Springs Chapter of the Nevada Fire Safe Council sought to raise citizen awareness and implement defensible space treatments on individual lots.

| Mountain Springs Project Summary | |
|----------------------------------|---------------------------|
| Chapter Affiliation Date | November 9, 2005 |
| Wildfire Risk/Hazard Rating | EXTREME |
| Chapter Members | 18 |
| Project Details | |
| Project Date | Summer 2006 – Spring 2007 |
| Acres Treated | 50 |
| Biomass removed (est.) | 494 tons |
| State of NV Funding | \$ 43,750 |
| Chapter Contribution | \$ 23,000 |
| Total Project Value: | \$ 66,750 |

The Project. Contract hand crews thinned ground fuels, removed ladder fuels and removed dead and dying materials within the Mountain Springs community. A chipper on site processed material as it was removed. Chips were hauled from the site. Funding for the project was provided by \$43,750 from the 2005 State of Nevada appropriation. The Chapter contribution has been valued at \$23,000.



Above: This photograph shows the typical landscape in the Mountain Springs community. Note the over-growth of Pinon, sage and juniper species and the accumulation of fuels.

Results. The fire threat to the community has been reduced and community protection increased through the creation of 50 acres of defensible space on 14 properties within the community. Approximately 494 tons of hazardous fuels were removed. In addition to creating defensible space, chapter members distributed fire safe educational materials regarding fire behavior, the role of fuels and fire safety in the wildland urban interface to residents through the NVFSC quarterly and the UNR Cooperative Extension publication *Living With Fire*. A grant secured from the Nevada Division of Forestry's WUI Assistance Program in Fall 2007 will allow the Mountain Springs Chapter to continue fuels reduction work in 2008.

Background. The Mt. Charleston community, located in Kyle Canyon in the Spring Mountain National Recreation Area, became the 8th chapter of the Nevada Fire Safe Council (NVFSC) on September 19, 2002. The Clark County Risk/Hazard Assessment, completed in June 2005, identified the community as at **EXTREME** risk for catastrophic loss in the event of a wildfire. The assessment noted that there is only one major route (SR 157) in and out of the community, which makes defensible space in the near home environment of paramount importance. The assessment recommended a fire safe education for all residents of the community and hazardous fuel treatments on all private properties in accordance with *Living with Fire* guidelines for defensible space. Using funds provided by the 2005 State of Nevada appropriation, the Bureau of Land Management, and the Nevada Division of Forestry, the Mt. Charleston Chapter of the Nevada Fire Safe Council sought to raise citizen awareness and implement defensible space treatments on individual lots.

The Project. With the oversight of a certified arborist, handcrews reduced ground fuels, removed ladder fuels and removed dead and dying materials within the Mt. Charleston community. A chipper on site processed material as it was removed. Chips were left on site for mulch, used for erosion control, or hauled from the area. Additionally, evacuation information was distributed to every homeowner within the Mt. Charleston area. Funding for the project was provided in part by \$123,801 from the 2005 State of Nevada appropriation. The chapter contribution was valued at \$32,024. Additional funding for the project has been provided by the Bureau of Land Management and through the NDF WUI Assistance Grant program, and the project is on-going at this time.

Results. The fire threat to the community has been reduced and community protection increased through the defensible space on 30 acres within the community. In total, 600 tons of hazardous fuels were removed from 65 properties. Steep slopes were responsible for a slightly higher than average per acre cost. To date, approximately 2/3 of the Rainbow Subdivision has been treated. In addition to the fuels reduction program, fire safe educational materials regarding fire behavior, the role of fuels and fire safety in the wildland urban interface were provided to residents through the NVFSC quarterly and the UNR Cooperative Extension publication *Living With Fire*. The fuels reduction program in Mt. Charleston has funding to continue through 2008.

| Mt. Charleston Project Summary | |
|---------------------------------------|-----------------------|
| Chapter Affiliation Date | September 19, 2002 |
| Wildfire Risk/Hazard Rating | EXTREME |
| Chapter Members | 144 |
| Project Details | |
| Project Date | Summer 2005 – present |
| Acres Treated | 30 |
| Biomass removed (est.) | 600 tons |
| State of NV Funding – Fuels reduction | \$ 123,801 |
| BLM Funding | \$ 56,493 |
| NDF WUI Assistance Grants | \$ 163,850 |
| Chapter Contribution | \$ 32,024 |
| Total Project Value: | \$ 376,168 |



Above: Hand crews removing hazardous fuels from the steep Mt. Charleston slopes. Below: Typical fuel loading in the Mt. Charleston area.



Background. The Pinenut Creek neighborhood, located approximately eleven miles East of Gardnerville in Douglas County, became the 15th chapter of the Nevada Fire Safe Council (NVFSC) on July 14, 2003. The Douglas County Risk/Hazard Assessment, completed in March 2005, identified the community as at HIGH risk for catastrophic loss in the event of wildfire. Noting that there were no hydrants available in the community and the nearest tank for drafting was five miles away, the assessment recommended installing one or more dry hydrants in the community. Using funds provided by the 2005 State of Nevada appropriation, the Pinenut Creek Chapter of the Nevada Fire Safe Council elected to install two 10,000-gallon dry hydrants. The report also had several recommendations for fuel reduction projects, which were already underway by the Chapter and NVFSC using Bureau of Land Management funding.

| Pine Nut Creek Project Summary | |
|---------------------------------|------------------|
| Chapter Affiliation Date | July 14, 2003 |
| Wildfire Risk/Hazard Rating | HIGH |
| Chapter Members | 7 |
| Project Details | |
| Project Date | Spring 2006 |
| Dry Hydrant Capacity (2 tanks) | 20,000 gallons |
| Acres Treated (fuels reduction) | 73 acres |
| Biomass (est.) | 385 tons |
| State of Nevada Funding | \$ 12,633 |
| BLM Funding | \$ 25,644 |
| Chapter Contribution | \$ 10,000 |
| Total Project Value: | \$ 48,449 |



Above: Unloading the 10,000-gallon tank. Below: The tank is buried after being placed in the ground.

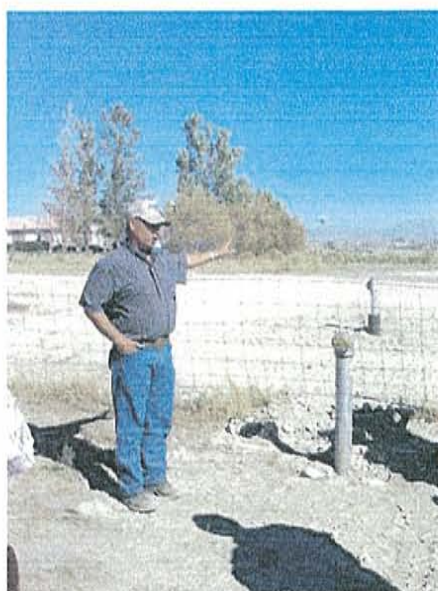


The Project. Two used 10,000 gallon tanks were cleaned and sealed to meet EPA specifications for non-potable water storage, painted with rust-resistant paint, and placed in the ground in strategic locations for water storage. The tanks are non-pressurized and require little maintenance. The tanks were retrofitted for use by USFS, BLM, and East Fork Fire Protection District equipment. A typical wildland fire brush tender carries 500 gallons of water, meaning it can refill up to 40 times using the new tanks. Funding for the project was provided with \$12,805 from the 2005 State of Nevada appropriation and \$10,000 in contributions provided by the Pine Nut Creek chapter. A concurrent project funded with \$25,644 from the BLM reduced fuels on the south and north sides of the community using mastication equipment.

Results. By placing a 10,000-gallon dry hydrant in their community, the Pinenut Creek Chapter has increased its infrastructure, thus decreasing the chance of the wildfire spreading uncontrolled to adjacent areas or homes. The concurrent fuels reduction project using funds from the Bureau of Land Management removed 385 tons of fuel from 73 acres. Additionally, fire safe educational materials regarding fire behavior, the role of fuels and fire safety in the wildland urban interface were provided to residents through the NVFSC quarterly and the UNR Cooperative Extension publication *Living With Fire*. As an additional educational component, a defensible space demonstration project was held in the community.

Background. The ROWE chapter, comprised of the Ryndon, Osino, White Rock, and Elburz communities just northeast of Elko, became the 38th chapter of the Nevada Fire Safe Council (NVFSC) on October 25, 2005. The Elko County Risk/Hazard Assessment, completed in August 2005, identified the community as at MODERATE TO HIGH risk of catastrophic loss in the event of a wildfire. The assessment contained four recommendations for the community: (1) Public education and awareness; (2) A tie-in between private properties and an adjacent BLM fuelbreak around the communities; (3) The addition of suppression capacity through installation of dry hydrants; and (4) fuels reduction and defensible space in the communities. Using funds provided by the 2005 State of Nevada appropriation, the ROWE Chapter of the Nevada Fire Safe Council sought to work on priorities (1) and (3). Work to address priorities (1) and (4) will begin in the Spring/Summer of 2008 using Bureau of Land Management grant funds.

| ROWE Project Summary | |
|-----------------------------|------------------|
| Chapter Affiliation Date | October 25, 2005 |
| Wildfire Risk/Hazard Rating | Moderate to High |
| Chapter Members | 45 |
| Project Details | |
| Project Date | Summer 2006 |
| Dry Hydrants | Three |
| Water Capacity | 32,000 gallons |
| State of Nevada Funding | \$ 37,665 |
| Chapter Contribution | \$ 22,761 |
| Total Project Value: | \$ 60,426 |



Left: a 10,000-gallon tank being installed in the community of Ryndon, Elko County, Nevada. **Right:** Mike McCarty, NVFSC project coordinator, shows the tank after installation. The pipe in the foreground is for firefighting equipment to draw water; the pipe in the background is an air vent and can also be used to fill the tank.

The Project. Three tanks were cleaned and sealed to meet EPA specifications for non-potable water storage, painted with rust-resistant paint, and placed in the ground at strategic locations located in the Ryndon, Elburz and Osino communities. The tanks are non-pressurized and require little maintenance. The tanks were retrofitted for use by USFS, BLM, NDF, and the Ryndon VFD. The three tanks hold 32,000 gallons of water, the equivalent to 64 refills for a typical 500 gallon wildland fire truck. Funding for the project was provided with \$37,665 from the 2005 State of Nevada appropriation and \$22,761 in contributions provided by the ROWE community chapter.

Results. Less than one month after the tanks were filled, one ROWE dry hydrant was used during a structure fire that threatened to spread to adjacent rangeland, proving that additional infrastructure can decrease the chance of wildfire spreading uncontrolled into adjacent areas. Additionally, fire safe educational materials regarding fire behavior, the role of fuels and fire safety in the wildland urban interface were provided to residents through the NVFSC quarterly and the UNR Cooperative Extension publication *Living With Fire*.

Background. The Lake Tahoe community of Round Hill, located on Highway 50 between Zephyr Cove and Kingsbury Grade in Douglas County, became the 39th chapter of the Nevada Fire Safe Council (NVFSC) on October 18, 2005. The County Risk/Hazard Assessment completed for the Tahoe Douglas Fire Protection District, completed in July 2004, identified the community as at HIGH of catastrophic loss in the event of a wildfire. The assessment observed that only 56% of homes in the area have adequate defensible space and offered several recommendations, including defensible space treatments on private properties and fuelbreak projects in and around the communities of Elk Point, Round Hill, and Zephyr Heights. Using funds provided by the 2005 State of Nevada appropriation and a USFS grant, the Round Hill chapter of the Nevada Fire Safe Council sought to implement defensible space projects on private properties.

| Round Hill Project Summary | |
|-----------------------------|--------------------|
| Chapter Affiliation Date | October 18, 2005 |
| Wildfire Risk/Hazard Rating | HIGH |
| Chapter Members | 171 |
| Project Details | |
| Project Date | Summer – Fall 2006 |
| Acres Treated | 40 |
| Biomass removed (est.) | 120 tons |
| State of Nevada Funding | \$ 23,208 |
| USFS CA Clearinghouse Grant | \$ 44,120 |
| Chapter Contributions | \$ 27,639 |
| Total Project Value: | \$ 94,967 |

The Project. The project called for contract hand crews to remove and thin the dense brush understory and reduce ladder fuels. Dead and downed materials were also removed. All materials were chipped and left on site for mulch and erosion control. Funding for the project was provided by \$23,208 from the 2005 State of Nevada appropriation and \$44,120 from the USFS California Clearinghouse grant program. The Round Hill Chapter contribution was valued at \$27,639.



More than 50 residents of Round Hill attended Fire Safe Day 2006 to listen to the Tahoe Douglas Fire Protection District discuss defensible space implementation in the near home environment. In addition, a licensed forester demonstrated how a defensible space prescription would be carried out on a residential property.

Results. The fire threat has been reduced and community protection increased by an overall reduction of fuel volume, the removal of ladder fuels and a reduction of small diameter timber. Approximately 40 acres were treated for defensible space and an estimated 120 tons of fuel were removed. Additionally, fire safe educational materials regarding fire behavior, the role of fuels and fire safety in the wildland urban interface were provided to residents through the NVFSC quarterly and the UNR Cooperative Extension publication *Living With Fire*.

Background. The Lake Tahoe community of Skyland, located along Highway 50 in Douglas County, became the 25th chapter of the Nevada Fire Safe Council (NVFSC) on March 9, 2005. The County Risk/Hazard Assessment completed for the Tahoe Douglas Fire Protection District, completed in July 2004, identified the community as at HIGH risk for catastrophic loss in event of a wildfire. The assessment contained recommendations for the community that called for: (1) Removal and thinning of adjacent USFS lands to reduce fuel loading and increase forest health and (2) defensible space and fuel reduction treatments on all private property. Using funds provided by the 2005 State of Nevada appropriation and a Nevada Division of Forestry Grant, the Skyland Chapter of the Nevada Fire Safe Council sought to work on the second priority.

| Skyland Project Summary | |
|---------------------------------|-----------------------|
| Chapter Affiliation Date | March 9, 2005 |
| Wildfire Risk/Hazard Rating | |
| Chapter Members | 234 |
| Project Details | |
| Project Date | Summer 2006 - present |
| Acres Treated | 36 |
| Biomass removed (est.) | 210 tons |
| State of Nevada Funding | \$ 32,000 |
| NDF - USDA WUI Assistance Grant | \$ 40,000 |
| Chapter Contributions to date | \$ 135,100 |
| Total Project Value: | \$ 207,100 |

The Project. The Skyland fuels reduction project consisted primarily of thinning below the overstory. Smaller trees and brush were removed. Dead standing trees, trees heavily infected with dwarf mistletoe and down woody fuels

were also removed. Larger more dominant trees were not removed from the project area. The Skyland chapter also held an events in 2006 and 2007 during Wildland Fire Awareness Week to encourage residents to pick up highly flammable pine needles and pinecones. Funding for the projects was provided by \$32,000 from the 2005 State of Nevada appropriation and \$40,000 from a NDF WUI Assistance grant. The Skyland Chapter's contribution of cash and in-kind contributions was valued at \$135,100 for the grant period.



Above: Signs encouraging residents to collect and dispose of highly flammable pine needles and pinecones. Below: A small sample of the pinecones and pine needles waiting for collection in 2006.



Results. The fire threat has been reduced and community protection increased by an overall reduction of fuel volume, the removal of ladder fuels and a reduction of stand density. 210 tons of fuel on 36 acres was removed. 105 properties were treated for defensible space, according to best management practices. A highly successful pine needle and pinecone collection project in 2006 and 2007 yielded more than 800 cubic yards of pinecones and pine needles from residential lots. The materials were taken to a facility for composting, thus saving landfill space. The Skyland chapter also held a demonstration day, where members of the community were invited to meet with Tahoe Douglas Fire Protection District personnel to learn how best management practices for defensible space can be implemented on private property. Additionally, fire safe educational materials regarding fire behavior, the role of fuels and fire safety in the wildland urban interface were provided to residents through the NVFSC quarterly and the UNR Cooperative Extension publication *Living With Fire*.

Background. The Spring Creek Community, south east of the city of Elko in Elko County, became the 56th chapter of the Nevada Fire Safe Council (NVFSC) on September 28, 2006. The Elko County Risk/Hazard Assessment, completed in August 2005, identified the Spring Creek community as at MODERATE risk of catastrophic loss in the event of a wildfire. The assessment concluded that contributing factors included high hazard fuels, the potential for high intensity fires, and a lack of visible signage. Using funds provided by the 2005 State of Nevada appropriation and funds secured from the Bureau of Land Management, the Spring Creek Chapter of the Nevada Fire Safe Council sought to mitigate the risk posed by high hazard fuels by treating common open space areas that run throughout the community. These open areas were intended to serve as equestrian trails, but have become overgrown with flammable materials from the lack of proper maintenance over time.

| Spring Creek Project Summary | |
|--------------------------------|-----------------|
| Chapter Affiliation Date | Sept. 28, 2006 |
| Wildfire Risk/Hazard Rating | Moderate |
| Chapter Members | 42 |
| Project Details | |
| Project Date | Summer 2007 |
| Acres Treated | 220 |
| Biomass removed/modified (est) | 1200 tons |
| State of Nevada Funding | \$ 8,194 |
| BLM Funding | \$ 34,902 |
| Chapter Contribution | \$ 5,479 |
| Total Project Value: | \$48,575 |



Above: Mowing within the Spring Creek community to reduce fuel loading in common areas. After mowing was complete, a pre-emergent herbicide was applied in the project area to inhibit cheatgrass growth.

The Project. Contract crews were hired to mow open space to mitigate the fuel threat posed by cheatgrass, sage, and bitterbrush. The area was then treated with the pre emergent herbicide Plateau® to inhibit the re-growth of cheatgrass and allow native species to become reestablished. Funding for the project was provided by \$8,134 from the 2005 State of Nevada appropriation. Chapter members have matched the grant with in-kind contributions valued at \$5,479 to date. A grant secured from the Nevada Division of Forestry in Fall 2007 will allow the project to continue in 2008.

Results. The future fire threat has been reduced and community protection increased by fuels reduction in the Spring Creek

common area. A total of 220 acres were treated and 1200 tons of biomass were removed. Additionally, fire safe educational materials regarding fire behavior, the role of fuels and fire safety in the wildland urban interface were provided to residents through the NVFSC quarterly and the UNR Cooperative Extension publication *Living With Fire*. It is hoped that awareness in the Spring Creek community has been raised and that the open space within the community will be maintained by the homeowners association in the future.

Background. The Spring Valley / Double Springs community, located in southern Douglas County adjacent to Highway 395, became the 5th chapter of the Nevada Fire Safe Council (NVFSC) on July 26, 2002. Using funds secured from the Bureau of Land Management and the Nevada Division of Forestry, the chapter treated 234 acres and removed 1300 tons of biomass from the community in 2003 and 2004. The Douglas County Risk/Hazard Assessment, completed in March 2005, recognized this accomplishment, but still identified the community as at HIGH risk of catastrophic loss in a wildfire event. The assessment contained several recommendations for the Spring Valley / Double Springs area: (1) creating defensible space on private lots within the community, and (2) increasing suppression capacity within the community. Using funds provided by the 2005 State of Nevada appropriation, the Chapter sought to increase suppression capacity.

Spring Valley / Double Springs Project Summary

| | |
|-----------------------------|-------------------------|
| Chapter Affiliation Date | July 26, 2002 |
| Wildfire Risk/Hazard Rating | High |
| Chapter Members | 42 |
| Project Details | |
| Project Date | Fall 2006 – Spring 2007 |
| Dry Hydrant Capacity | 10,000 gallons ea. |
| State of Nevada Funding | \$13,715 |
| Chapter Contribution | <u>\$13,263</u> |
| <i>Total Project Value:</i> | <i>\$26,978</i> |



Above and below: Installation of dry hydrants in the Spring Valley / Double Springs chapter.



The Project. Two used 10,000-gallon tanks were cleaned and sealed to meet EPA specifications for non-potable water storage, painted with rust-resistant paint, and placed in the ground in a strategic location in the Spring Valley/Double Springs neighborhood. The tanks are non-pressurized, require little maintenance, and have been retrofitted for use by USFS, BLM, East Fork Fire, and VFS. A typical wildland fire brush tender carries 500 gallons of water, meaning it can refill up to 40 times using the new tanks. Funding for the project was provided with \$13,715 from the 2005 State of Nevada appropriation and \$13,263 in cash and in-kind contributions provided by the Chapter.

Results. Placement of two 10,000-gallon dry hydrants in the Spring Valley/Double Springs Chapter community has increased suppression infrastructure, thus decreasing the chance of the wildfire spreading uncontrolled to adjacent areas or homes. Additionally, fire safe educational materials regarding fire behavior, the role of fuels and fire safety in the wildland urban interface were provided to residents through the NVFSC quarterly and the UNR Cooperative Extension publication *Living With Fire*.

Background. The Lake Tahoe community of Tyrolian Village, located adjacent to Incline Village in Washoe County, became the 12th chapter of the Nevada Fire Safe Council (NVFSC) on November 11, 2002. The County Risk/Hazard Assessment completed for the North Lake Tahoe Fire Protection District, completed in July 2004, identified the community as at EXTREME risk for catastrophic loss in the event of a wildfire. The assessment recommended that the Tyrolian Village area be made the 2nd priority of the North Lake Tahoe Fire Protection District. Treatment recommendations included: (1) Thinning the entire area to reduce fuel loading; and (2) construction of a 400' wide shaded fuel break on the east side of Tyrolian Village and along the north side of the Diamond Peak Ski Area. Using funds provided by the 2005 State of Nevada appropriation, the Tyrolian Village chapter of the Nevada Fire Safe Council sought to work on priority (1).

| Tyrolian Village Project Summary | |
|----------------------------------|--------------------|
| Chapter Affiliation Date | November 11, 2002 |
| Wildfire Risk/Hazard Rating | EXTREME |
| Chapter Members | 13 |
| Project Details | |
| Project Date | Summer - Fall 2005 |
| Acres Treated | 12 |
| Biomass removed (est.) | 52 tons |
| State of NV Funding | \$ 20,000 |
| Chapter Contributions | \$ 10,399 |
| Total Project Value: | \$ 30,399 |



Above and below: Defensible space treatment in the Tyrolian Village near-home environment.



The Project. The fuels prescription for fuels reduction included the removal of the brush understory, removing ladder fuels, removing dead and down materials, and the removal of 113 small and large diameter trees to reduce the risk of crown fires. Funding for the project was provided by \$20,000 from the 2005 State of Nevada appropriation. The Tyrolian Village Chapter contribution was valued at \$10,399.

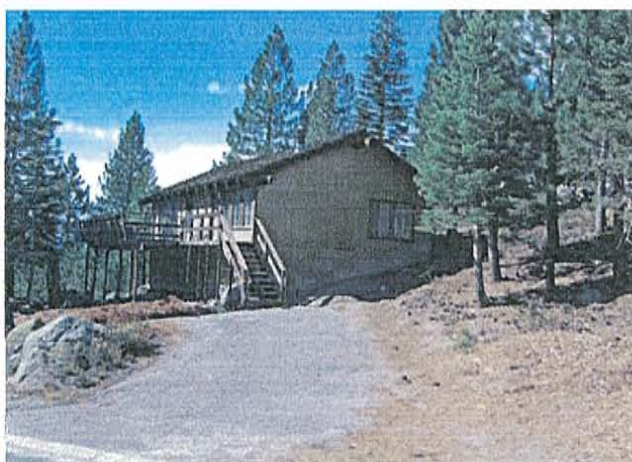
Results. 13 properties on 12 acres were treated pursuant to defensible space recommendations. 52 tons of biomass were removed. Additionally, fire safe educational materials regarding fire behavior, the role of fuels and fire safety in the wildland urban interface were provided to residents through the NVFSC quarterly and the UNR Cooperative Extension publication Living With Fire.

Background. The Lake Tahoe community of Upper Kingsbury, located along State Route 207 in Douglas County, became the 49th chapter of the Nevada Fire Safe Council (NVFSC) on March 23, 2006. The County Risk/Hazard Assessment for the Tahoe Douglas Fire Protection District, completed in July 2004, identified the community as at HIGH risk for catastrophic loss in the event of a wildfire. The assessment recommended the community-wide removal or thinning of brush understory by hand or by mastication, the removal of ladder fuels and the removal of dead and decaying materials. Using funds provided by the 2005 State of Nevada appropriation, a grant secured through the NDF WUI Assistance program and homeowner contributions, the newly formed Chapter of the Nevada Fire Safe Council sought to reduce fuels throughout the community.

| Upper Kingsbury Project Summary | |
|---------------------------------|-------------------------|
| Chapter Affiliation Date | March 23, 2006 |
| Wildfire Risk/Hazard Rating | Extreme |
| Chapter Members | 115 |
| Project Details | |
| Project Date | Summer 2006 – Fall 2007 |
| Acres Treated | 26 |
| Biomass removed (est.) | 80 tons |
| State of Nevada Funding | \$ 11,000 |
| NDF WUI Assistance Grant | \$ 45,000 |
| Chapter Contributions | \$ 49,353 |
| Total Project Value: | \$ 105,353 |



Above: A home in the Kingsbury Chapter neighborhood prior to fuels reduction. Below: The same home after treatment. Note the absence of ladder and ground fuels.



The Project. Fuels reduction included the removal or hand thinning of brush understory to decrease the fire intensity and reduce ladder fuels. Dead and downed materials were also removed. Larger, more dominant trees were not removed. Funding for the project was provided by \$11,000 from the 2005 State of Nevada appropriation and an NDF WUI Assistance Grant of \$45,000. The Upper Kingsbury Chapter contribution was valued at \$49,353 in cash and in-kind contributions.

Results. The fire threat has been reduced and community protection increased by an overall reduction of fuel volume, the removal of ladder fuels and a reduction of stand density. 51 properties on 26 acres were treated for defensible space and approximately 80 tons of biomass were removed in the project area. Signboards were used during the project to increase visibility of the Kingsbury Chapter and encourage additional membership and participation. At the inception of the project, the chapter had 12 members - it now has 115. Additionally, fire safe educational materials regarding fire behavior, the role of fuels and fire safety in the wildland urban interface were provided to residents through the NVFSC quarterly and the UNR Cooperative Extension office.

Background. The Virginia Highlands Neighborhood, located off of Highway 341 between the junction of Highway 395 and Virginia City, became the inaugural chapter of the Nevada Fire Safe Council (NVFSC) on February 25, 2002. The Storey County Risk/Hazard Assessment, completed in November 2004, identified the community as at EXTREME risk for catastrophic loss in the event of a wildfire. The assessment contained four recommendations for the community: (1) community education; (2) defensible space and fuel reduction treatments on private property; (3) construct 200' wide fuelbreaks along roads to allow for evacuation of residents and ingress of suppression equipment, and; (4) the reduction of the overall tree density within the community. Using funds provided by the 2005 State of Nevada appropriation and a grant secured in 2006 through the Nevada Division of Forestry's WUI Assistance program, the Virginia City Firesafe Highlands chapter of the Nevada Fire Safe Council sought to work on priorities (1),(2) and (3). In addition, the chapter worked with the Storey County VFD to pay part of the installation cost of five 10,000 to 20,000 gallon dry hydrants in the community.

Virginia Fire Safe Highlands Project Summary

| | |
|------------------------------------|-----------------------|
| Chapter Affiliation Date | February 25, 2002 |
| Wildfire Risk/Hazard Rating | EXTREME |
| Chapter Members | 35 |
| Project Details | |
| Project Date | Fall 2005 - Fall 2007 |
| Acres Treated | 190 |
| Biomass removed (est.) | 711 tons |
| State of Nevada Funding (fuels) | \$ 55,592 |
| State of NV Funding (dry hydrants) | \$ 6,581 |
| NDF - USDA WUI Assistance Grant | \$ 16,077 |
| Chapter Contribution | \$ 48,768 |
| Total Project Value: | \$ 127,018 |



Above: A typical fuel load in the VC Highlands community prior to mastication. Below: The same area after treatment



The Project. Roadside fuel breaks, including along Satarac Road (the primary evacuation route for the community) were constructed in 2006 and 2007. Most of this work was done to a width of 50' using rubber tracked mastication equipment with a Fecon bullhead. Hand crews were utilized in areas that were steep and inaccessible to machinery. Landowners were encouraged to meet the match terms of funding by making their own properties fire safe. Fuels removed from roadside firebreaks and individual lots were taken to a centralized community slash pile that was subsequently tub-ground and removed to a biomass utilization facility by truck. The Storey County VFD was instrumental in the project and was successful in securing voluntary compliance on private properties. Funding for the fuels reduction was provided by \$55,592 from the 2005 State of Nevada appropriation and a NDF WUI Assistance grant. The Chapter's contribution for the reporting period was valued at \$64,004.

Results. Although the width of the roadside fuelbreaks was reduced to 50 feet from the originally planned 200 feet, the community and the local fire department feel that it is a good start on a large project that will take several more years to finish. An NDF WUI Assistance grant will allow work to continue in 2008. 190 acres were treated as part of the roadside firebreak project and on individual lots. It is estimated that 711 tons of fuels were removed. Most of the biomass was directed to the Nevada State Prisons' biomass facility in Carson City. Fire safe educational materials regarding fire behavior, the role of fuels and fire safety in the wildland urban interface were provided to residents through the NVFSC quarterly and the publication *Living With Fire*.

Background. The West Washoe Chapter, located on the Sierra Front in Washoe Valley, became the 32nd chapter of the Nevada Fire Safe Council (NVFSC) on July 7, 2005. The Washoe County Risk/Hazard Assessment, dated June 2005, rated the area as at HIGH risk of catastrophic loss due to wildfire. This risk was based on the potential fire behavior related to topography and vegetative fuels and limited suppression resources. A fuel break along the west side of the community from Bowers Mansion to Lakeview was recommended as a mitigation measure. Using funds provided by the 2005 State of Nevada appropriation and NDF funds, the West Washoe Chapter sought to mitigate the risk of loss due to wildfire by beginning construction of the west side fuelbreak.

The Project. Working in collaboration with the newly created Sierra Fire Protection District, the Nevada Fire Safe Council sought to do an education and outreach program to residents in the community. 179 residents were personally contacted, and 24 defensible space inspections were performed. The first phase of the fuel break was completed with funding \$67,079 from the 2005 State of Nevada appropriation and \$16,156 from the Nevada Division of Forestry.

Results. The Sierra Fire Protection District hand crew and a private mastication contractor removed 251 tons of hazardous fuels from 36 acres in the community. Additionally, fire safe educational materials regarding fire behavior, the role of fuels and fire safety in the wildland urban interface were provided to residents through the NVFSC quarterly and the UNR Cooperative Extension publication *Living With Fire*. The Chapter hopes to secure additional funds for fuels reduction work in 2008.

| West Washoe Project Summary | |
|-----------------------------|-------------------------|
| Chapter Affiliation Date | July 7, 2005 |
| Wildfire Risk/Hazard Rating | HIGH |
| Chapter Members | 16 |
| Project Details | |
| Project Date | Fall 2007 - Summer 2007 |
| Acres Treated | 36 |
| Biomass removed (est.) | 251 |
| State of Nevada Funding | \$ 67,079 |
| NDF WUI Assistance Grant | \$ 16,126 |
| <i>Total Project Value:</i> | <i>\$ 83,205</i> |

Background. The community of Woodhills, in eastern Elko County near Wells, became the 48th chapter of the Nevada Fire Safe Council (NVFSC) on March 3rd, 2006. The Elko County Risk/Hazard Assessment did not include the community of Woodhills because the community is relatively new and was not included in the list published in the Federal Register following passage of the Healthy Forest Restoration Act. However, based on comparisons with similar communities, the Nevada Fire Safe Council considers Woodhills as at HIGH risk for catastrophic loss due to wildfire, primarily due to vegetation types and lack of suppression infrastructure. Using funds provided by the 2005 State of Nevada appropriation, the Woodhills Chapter sought to increase suppression capacity by installing a dry hydrants in the community.

| Woodhills Project Summary | |
|-----------------------------|-----------------|
| Chapter Affiliation Date | March 3rd, 2006 |
| Wildfire Risk/Hazard Rating | HIGH |
| Chapter Members | 16 |
| Project Details | |
| Project Date | Summer 2007 |
| Dry Hydrant Capacity | 10,000 Gallons |
| State of Nevada Funding | \$ 1,796 |
| Chapter Contribution | \$ 5,000 |
| <i>Total Project Value:</i> | <i>\$ 6,796</i> |

The Project. A used 10,000-gallon fuel oil tank was cleaned and sealed to meet EPA specifications for non-potable water storage, painted with rust-resistant paint, and placed in the ground in a strategic location in the Woodhills community. The tank is non-pressurized, requires little maintenance, and has been retrofitted for use by USFS, BLM, and VFD equipment. A typical wildland fire brush tender carries 500 gallons of water, meaning it can refill up to 20 times using the new tank. Funding for the project was provided with \$1,796 from the 2005 State of Nevada appropriation and \$5,000 in in-kind contributions provided by chapter volunteers.

Results. By placing the 10,000-gallon dry hydrant in their community, the Woodhills Chapter has increased its infrastructure, thus decreasing the chance of the wildfire spreading uncontrolled to adjacent areas or homes. Additionally, fire safe educational materials regarding fire behavior, the role of fuels and fire safety in the wildland urban interface were provided to residents through the NVFSC quarterly and the UNR Cooperative Extension publication *Living With Fire*. The Chapter has been working to secure additional funds for fuels reduction work in 2008.

MISCELLANEOUS PROJECTS



Tahoe Douglas Fire Protection District Chipper Program. In 2006, the NVFSC subgranted \$40,950 to the Tahoe Fire Protection District to fund a three person chipping crew. The crew was on-call from July 7th through August 31st and could be scheduled by anyone in the district with a simple phone call. A total of 123 properties received curbside chipping services and over 120,588 cubic yards of materials were chipped. The chips generated from these piles were used for ground cover to comply with Best Management Practices. In conjunction with these piles, homeowners logged over 805.5 hours of in-kind labor and over \$18,808 in matching dollars for services. A combined total of 58.2 acres were chipped. In addition to curbside chipping at residential sites, the chipping crew piled and chipped brush generated from Nevada Division of Forestry crews on the Cave Rock Defensible Space Project. Approximately 25

acres were treated by the TDFPD crew on this project. The Chipping Program has been well received by the public and the homeowners are grateful for the free assistance. In many cases, the convenience of the program has motivated homeowners to do defensible space work. Homeowners also enjoy the opportunity to meet and learn from the Tahoe Douglas Fire personnel. The chipping program continued in summer 2007 with a USFS California Clearinghouse grant.

Carson City Dumpster Program - To most effectively serve Carson City's five chapters (Timberline, Kings Canyon, Lakeview, North Carson, Mexican Dam/Pinion Hills), the NVFSC teamed up with the Carson City Fire Department to provide an easy way for residents to dispose of materials collected on private property. Carson City contributed one vehicle, a dumpster and a trailer. NVFSC contributed funds to pay for two part-time drivers. Residents could request delivery of the dumpster or trailer by calling the Carson City Fire Department. Upon removal, all waste was delivered to the Carson City landfill to be used in the Nevada State Prisons biomass facility. The program was enormously successful: 164 trailer deliveries and 61 dumpster deliveries yielded 160 tons of biomass. \$14,999.74 from the 2005 State of Nevada appropriation was spent on this project.

Community Wildfire Protection Plans (CWPP) Reproduction Costs. Between 2004 and 2006, nineteen separate risk/hazard assessments were drafted for use by fire management agencies and the NVFSC. This included one for each county (17) and one additional CWPP each for the Tahoe Douglas Fire Protection District and the North Lake Tahoe Fire Protection District. The documents serve as community wildfire protection plans for communities at risk in Nevada. The recommended risk mitigation measures contained in the CWPPs are the blueprint by which the NVFSC sets priorities and designs projects. There are also distinct CWPPs for many of the communities at risk that are being utilized, including: *The Mt. Charleston Implementation Plan* (C.G. Celio and Sons, 2005); *Wildfire Hazard Assessment and Mitigation Plan for the Spring Valley/Double Springs Community* (SWCA Environmental Consultants, 2003); and *Community Wildfire Threat Reduction and Project Implementation Plan - Job's Peak Ranch* (Blackbull Wildfire Services, 2004). \$14,931 of the 2005 State of Nevada appropriation was spent on CWPP reproduction costs so that appropriate personnel could fully participate and be informed in fuels reduction projects.



Management Information System. In cooperation with fire protection districts in the Lake Tahoe Basin, the Nevada Fire Safe Council created a management information system that will track defensible space inspections, fuels treatments, and compliance throughout the region. \$3,268 from the 2005 State of Nevada appropriation was contributed on this project. The product is now being used all of the fire protection districts in the Basin, and funding is currently being sought to centralize and consolidate the data.

Threatened and Endangered Species Survey of the Tahoe Douglas Fire Protection District. Many of the fuels reduction projects carried out by the NVFSC are exempt from the National Environmental Policy Act (NEPA) pursuant to the Healthy Forest Restoration Act, and neither an Environmental Analysis (EA) nor an Environmental Impact Statement (EIS) are required. However, to "take" a threatened or endangered (T&E) species is still prohibited by law. As many of our chapter projects take place in the Tahoe Douglas Fire Protection District, the NVFSC felt that it was important to survey the area for T&E species and outline appropriate mitigation measures should such species be encountered. The report was well received by the NVFSC Board of Directors and has been helpful during project implementation. \$7,000 of the 2005 State of Nevada appropriation was spent on the T&E Species survey.

Education and Outreach. \$542 was spent to develop chapters and build awareness of the Nevada Fire Safe Council's fuels reduction program. As in the past, most of the success achieved is due to word of mouth and neighbor-to-neighbor contact, rather than with mailings, which allows the NVFSC to keep mailing and reproduction costs at a minimum.

Defensible space saves day

by Kurt Hildebrand, khildebrand@recordcourier.com
August 22, 2007

Defensible space is being credited with preserving homes from a fire that burned east of Fish Springs on Friday.

Shannon Litz/The R-C A firefighter clears brush during the Pinenut fire on Friday.



[Browse and Buy
Record Courier
Photos](#)

[Click to Enlarge](#)

Fire Marshal Steve Eisele said work done by the Pine Nut Creek Chapter of the Fire Safe Council helped save the homes along Lena Lane from the fire.

"The Pine Nut Creek residents did a lot of very good defensible space work around their property, thinning the sage, juniper and piñon pine," he said. "When the fire occurred, it burned up to their properties. The defensible space allowed two things to happen. The fire started to run out of fuel and it gave a safe area for the firefighters to work to defend all the structures on the property."

While the neighborhood doesn't have fire hydrants, many residents had private water tanks and there were some placed by the Fire Safe Council as well.

"Right now it really dry out there," he said. "We haven't had moisture in more than 80 days."

Response to the fire, which was called in at 5 p.m. from a home on Pinenut Road was quick.

Two air tankers and a helicopter responded to the fire along with engines from the East Fork Fire District, the U.S. Forest Service and the Bureau of Land Management. The cause of the fire is undetermined.

The fire was so close to the homes in the area, it was originally called in as a structure fire.

"A buffer does not mean removing all of the fuel, but part of it so the fire has to work harder to maintain heat to get to the house," Eisele said.

Besides reducing the amount of fuel for an area of at least 30 feet around the homes, defensible space may also include keeping vegetation near homes watered.

"There's all types of things people can do that changes the fuel structure and adds to that defensible space and protection of their home," he said.

Defensible space around a home can also prevent it from catching the surrounding wildland on fire, Eisele said.

"We were very fortunate we didn't lose any homes, everybody was working closely to get these fires out."

Western Nevada Fire Safe Council Coordinator Pat Murphy said work began in the area in 2004 with a grant from the BLM.

"It was undoubtedly the defensible space that helped save the property," Murphy said.

Murphy said one of the dangers of removing a lot of native vegetation is that cheat grass will grow up where it was.

"When we go in and remove sagebrush, we try to reseed native grasses where it is practical. Otherwise we'll spray a pre-emergent herbicide in the fall before the cheat grass grows. It works very well on non-native plants and won't affect any of the perennials out there like the sagebrush."

[BACK](#) ↩

The Record-Courier

Serving Douglas County Since 1880

August 29, 2007

Thanks for support in Pine Nut fire

Editor:

The members of the Pine Nut Creek chapter of the Nevada Fire Safe Council would like to thank all members of the fire departments responding to the Pine Nut 2 wildfire that occurred on Aug. 17 in the Pine Nut Mountains east of Gardnerville.

We are fortunate the skills of the fire departments were able to stop the fire it spread to additional piñon juniper woodland as well as five nearby homes. The air support for the fire was integral to the success. Several spotter planes as well as two borate bombers and the NDF helicopter were able to slow the fire, allowing the fire fighters on the ground to contain the fire. We would like to once again extend our wholehearted thanks to Sierra Spirit Ranch for generously allowing the NDF helicopter to dip water from nearby ranch ponds. Without these ponds and the cooperation of the ranch owner, the entire community as well as the Pine Nut Mountain range would be in much greater peril.

We would also like to commend the efforts of the Nevada Fire Safe Council who provided a grant to the Pine Nut Chapter in 2005 to thin the fuels in the area. The defensible space and thinning of the piñon juniper forest was a big factor in allowing firefighters to effectively do their job. Nevada residents living in rural areas would be well advised to join Nevada Fire Safe Council Chapters to help protect their homes and property.

Please join us in extending a huge thank you for a job well done to the following fire fighting agencies:

East Fork Fire Protection District, Fish Springs Volunteers, Ruhenstroth Volunteers, Sheridan Volunteers, Gardnerville Volunteers, Gardnerville Ranchos Volunteers, Nevada Department of Forestry, U.S. Bureau of Land Management and U.S. Forest Service.

Chairwoman Terri K. Clark
Assistant Chairwoman Barbara Gibbons
Pine Nut Creek Fire Safe Council



Our View: More than luck— skill

August 23, 2007

In less than one week North Tahoe homes have burned, residents evacuated and Truckee's largest subdivision threatened in two separate, dangerous fires.

As both last Saturday's Washoe Fire and Wednesday's Interchange Fire ignited, many of us wondered if we were witnessing the early hours of an inferno similar to the Angora Fire, which burned more than 250 homes in South Tahoe earlier this summer.

It was easy to fear the worst, as smoke plumes billowed over North Tahoe and Truckee during windy conditions.

Despite increasingly dry forest conditions and fickle winds, both fires were quelled before breaking out of control.

For that we have to thank the swift response of helicopters, airtankers and firefighters from around the region. From our local Tahoe and Truckee firefighters, to Forest Service, Calfire and regional firefighting crews — the response was immediate and decisive.

Stories filtering out of the Washoe Fire tell of brave, split-second decisions to cut fire lines that residents say saved homes.

At both fires, planes and helicopters circled in a continuous attack.

As we've seen this summer, fires are a fact of life for communities in wooded and mountainous communities like our own. And we are lucky to have such highly trained, well-equipped and brave firefighters to protect us from this annual threat.

Additional thanks needs to go to the Nevada Fire Safe Council, Granlibakken and the North Tahoe Fire Protection District and the Lake Tahoe Basin Management Unit for forest thinning work that helped suppress the Washoe Fire.

The Sierra Sun reported on the Granlibakken thinning project last year as crews were chainsawing and piling logs and brush around the resort. On Monday, Ron Parson, general manager of Granlibakken, was clearly relieved that the resort and his partners had the foresight to thin their forest.

"If it hadn't [been for that project], it would have blown through there like Sherman through Georgia," said Parson, who watched his guests be evacuated Saturday.

The fire eventually dwindled as it hit the treated forest area around Granlibakken.

"We were lucky, but we made our own luck in this case," Parson said.

In Truckee and North Tahoe, we feel the same way. In both fires we were lucky, but our quick-acting firefighting teams work on more than luck — it's skill.

[BACK](#)

CONTACT INFORMATION

THE NEVADA FIRE SAFE COUNCIL

P.O. Box 2724
440 West Spear Street
Carson City, Nevada 89702
Phone (775) 884-4455
Fax (775) 884-4457
Email: nvfiresafe@charter.net
www.nvfsc.org

NVFSC BOARD OF DIRECTORS

OFFICERS

Chairman of the Board - Gary Zunino, Director, UNR Fire Science Academy, Carlin NV
Vice Chairman - Tom Baker, United States Forest Service, Reno NV
Treasurer - Janice Roberts, Chapter Member, Holbrook Chapter, Holbrook NV
Secretary - Ruta Glinski, United States Bureau of Land Management, Reno NV

MEMBERS OF THE BOARD

Liz Claggett, Chapter Member, Mt. Charleston Chapter, Mt. Charleston NV
Ann Grant, Chapter Member, Skyland Chapter, NVFSC, Lake Tahoe NV
Doug Holcomb, City of South Lake Tahoe Fire Department, South Lake Tahoe CA
Jennifer Myslivy, United States Bureau of Land Management, Battle Mountain NV
Dan Pendelton, Chapter Member, Genoa Chapter, Genoa, NV
Joan Presley, Reno Fire Department, Reno, NV
Ed Smith, UNR Cooperative Extension, Minden, NV
Andrew Woodard, State Farm Insurance, Las Vegas NV
Mickey Yarbrow, At-Large NVFSC Member, Battle Mountain NV
Fred Zaga, At-Large NVFSC Member, Jiggs NV

NVFSC STAFF

Andrew List - Executive Director
Pat Murphy - Sierra Front Project Coordinator
Jason Arnold - Tahoe/Nevada Project Coordinator
John Pickett - Tahoe/California Project Coordinator
Jessica Mahnken - Tahoe/Lake Valley Project Coordinator
Mike McCarty - Northeastern Project Coordinator
Kim Otero - Southern Project Coordinator
Terry Sumner - Executive Assistant

NVFSC CONTRACT SUPPORT

Elwood Miller - Retired professor of Forestry, UNR
Candace Lowery - Media relations and communications consultant
Brian Colodny and Madara Daniel, Kohn Colodny, LLP - Accounting

Photo Credits

All photos taken by project coordinators and chapter volunteers, with the exception of:

Kings Canyon, page 16:

- *Waterfall Fire*, July 14, 2005 courtesy of wildlandfire.com
- *Kings Canyon After Waterfall Fire* from "*Waterfall Fire – Lessons Learned*," Pete Anderson, State Firewarden/Firemarshal, p. 41.
http://www.forestry.nv.gov/docs/waterfall_fire_lessons04.pdf

Miscellaneous Projects page 34:

- *Tahoe Douglas Fire Protection chipping crew*, courtesy of TDFPD.
- *Clark County Risk Hazard Assessment*, courtesy Resource Concepts Inc.

Acronyms used in this report

BLM: Bureau of Land Management
CWPP: Community Wildfire Protection Plan
HOA: Homeowners Association
NDF: Nevada Division of Forestry
NVFSC: The Nevada Fire Safe Council
SHPO: Nevada State Historic Preservation Office
T&E Species: Threatened and Endangered Species
TRPA: Tahoe Regional Planning Agency
USFS: United States Forest Service
VFD: Volunteer Fire Department
WUI: Wildland Urban Interface