

MEMORANDUM

DATE: July 19, 2002

TO: All Districts and Special Projects

FROM: Jan Hackett

RE: Additional USFWS D-space Guidelines

The CSFS and the USFWS have signed a Memorandum of Understanding addressing sensitive species when implementing a defensible space. We are still using our D-space guidelines, but have added USFWS guidelines. The additional guidelines are attached and include information and modification for the protection of federally-listed species under ESA.

Many WUI application packets are presently out and in circulation. Please incorporate the additional USFWS guidelines with our guidelines in the application packets that you have on your district (The USFWS uses Word Perfect). You can have them available to hand out to landowners asking for project reviews and approvals.

The additional guidelines explain each species of concern, its habitat and projected county locations and implementation requirements. Please review the guidelines and advise landowners to follow them, especially when in doubt of the presence of a species or its habitat. This will keep them in compliance with ESA.

In situations where the additions appear to be necessary, but you feel that the D-space will be ineffective by incorporating the new modifications, the landowner can contact the USFWS directly to look at that situation. We have told USFWS that we will not compromise safety and effective fire prevention techniques.

These guidelines will be in effect through December 31, 2002. At the end of the year the USFWS will evaluate the effectiveness of the additional guidelines. I will be asking for input from all of you who have worked with landowners to implement defensible spaces. Hopefully, for the purpose of future planning we can get a feel for the value, or problems, caused by these additions. Following are some questions to consider: Were landowners receptive to, and follow the additional guidelines? Were the additional guidelines easy to follow? Did they make a difference in the D-space work? In your opinion, do you think the additional guidelines helped in the protection of those particular sensitive species?

I appreciate your attention to this topic, and look forward to your feedback. Thanks!

*Note:
Minor changes
to section B
Throw away any
earlier copies.
MB
mj
LAT*

B. Additional USFWS Guidelines

The USFWS has adopted the CSFS guidelines and has made some modifications to provide additional protection to federally-listed species and their habitats. It is understood that many properties do not contain federally listed threatened or endangered species, or their habitat. However, following these guidelines allows important defensible space work to proceed while maintaining compliance with the ESA.

The USFWS is concerned with minimizing disturbances in areas with federally-listed species and their habitats and has, therefore, modified the CSFS vegetation spacing requirements, as shown in Table 2. The USFWS modifications include a restriction on the size of the defensible space that should not be exceeded (see Table 2). The USFWS modifications also include a restriction on the vegetation separation distance that should not be exceeded as well. As a general practice, surface disturbances must be avoided in order to avoid the potential for soil erosion and for sedimentation to occur in streams.

Table 2. USFWS Modified Defensible Space Distance and Vegetation Spacing Requirements.

Slope of Property	USFWS Defensible Space Distance* and Vegetation Treatment Guidelines**
1% to 20% slope	100' for brush/shrubs with 3x to 4x height separation distance 100' for trees with a crown separation distance not to exceed 20 ft. 30' for grass; grass mowed to 6 inches
21% to 40% slope	150' for brush/shrubs with 4x to 5x height separation distance 150' for trees with a crown separation distance not to exceed 30 ft. 50' for grass; grass mowed to 6 inches
>40% slope	200' for brush/shrubs with 6x to 7x height separation distance 200' for trees with a crown separation distance not to exceed 40 ft. 75' for grass; grass mowed to 6 inches

* Defensible space distances presented here are considered to be Maximum Allowable Distances under the USFWS guidelines.

** Bold text indicates USFWS modifications from the CSFS standard guidelines.

For example, in an area where federally-listed species may be present, the defensible space distance for a home built on a 25% slope should exactly 150 feet on the downhill side of the home. The distance between tree crowns within this defensible space should not exceed 30 feet. If the shrubs are 3-feet high, then the spacing between the shrubs should be at least 12 feet apart but no more than 15 feet apart.

Southwestern Willow Flycatcher Habitat - In areas where the flycatcher may occur (based on county and presence of suitable riparian habitat), USFWS has an additional requirement that the size of the clump of bushes or shrubs be at least 30 feet in length by 30 feet in width. This requirement is for the purpose of retaining clumps of vegetation that will be large enough to support a flycatcher. Spacing requirements for between the patches is provided in Table 2. If a clump(s) of flycatcher habitat is retained within the normal defensible space area per these guidelines, an expanded area of defensible space thinning work is permitted outside the limited distance to allow effective defensible space to be created. The additional area should not exceed the size of the retained clumps of habitat.

Canada Lynx Habitat - In locations above 8,000 feet elevation and slopes greater than 40%, in lynx habitat counties, defensible space fuels work can be conducted to a distance of 120 feet without additional consideration. If, however, an effective defensible space cannot be established without working beyond the 120 foot guidelines, the homeowner should contact the USFWS.

Ladder Fuels: Use existing CSFS guidelines.

Brush and Shrubs: USFWS guidelines allow for mechanical treatments only and do not cover the application of herbicide.

Grasses: Keep grass mowed to 6 inches. Grasses should be mowed, rather than clearing the ground surface, in order to minimize the disturbance of roots and to provide for conditions that allow the vegetation to recover. Other than defining a maximum allowable distance for defensible space in grasses (see Table 2), the USFWS guidelines do not modify the CSFS standard guidelines. There are no USFWS guideline restrictions on vegetation height for watered lawns.

C. Federally-Listed Species of Concern

The following text briefly describes the habitat characteristics of federally-listed species that may be affected by the development of defensible space around privately-owned residences/occupied structures in Colorado. Also provided are the Colorado counties in which these species may occur:

Preble's Meadow Jumping Mouse - The Preble's meadow jumping mouse (Preble's) inhabits areas with dense, herbaceous riparian (streamside) or wetland vegetation along the Front Range plains and foothills of Colorado below 7600 feet. Preble's habitat is considered to also include the 100-year floodplain plus 300 feet on both sides of the floodplain, or, in the absence of the 100-year floodplain, Preble's habitat is considered to include the riparian area of the stream plus a 300 foot buffer on both sides of the stream. Counties include: Adams, Arapahoe, Boulder, Denver, Douglas, Elbert, El Paso, Jefferson, Larimer, Morgan, Pueblo, and Weld.

Canada Lynx - The lynx occurs in mesic (moist) coniferous forests that have cold, snowy winters and provide a prey base of snowshoe hare. In Colorado, the primary vegetation that contributes to lynx habitat is lodgepole pine, subalpine fir, and Engelmann spruce with an elevation range of 8,000 to 11,500 feet. Counties include: Alamosa, Archuleta, Boulder, Chaffee, Clear Creek, Conejos, Costilla, Custer, Delta, Dolores, Eagle, Fremont, Garfield, Gilpin, Grand, Gunnison, Hinsdale, Huerfano, Jackson, Jefferson, Lake, La Plata, Larimer, Las Animas, Mesa, Mineral, Moffat, Montezuma, Montrose, Ouray, Park, Pitkin, Pueblo, Rio Blanco, Rio Grande, Routt, Saguache, San Juan, San Miguel, and Summit.

Greenback Cutthroat Trout - The greenback cutthroat trout is found in isolated headwaters of mountain streams of the South Platte and Arkansas River drainages. It occurs in clear, cold and well-oxygenated streams with gravelly to rocky substrate and abundant riparian vegetation. Counties include: Boulder, Clear Creek, Custer, Douglas, El Paso, Huerfano, Lake, Larimer, Park, and Pueblo.

Southwestern Willow Flycatcher - The southwestern willow flycatcher (flycatcher) breeds in southwestern Colorado in dense riparian tree and shrub communities associated with rivers, swamps, and other wetlands. Common tree and shrub species include willows, boxelder, tamarisk, and Russian olive. Minimum vegetation patch size is 30 feet long by 30 feet wide by 5 feet high; vegetation patches smaller than this size are considered too small to support a flycatcher. Counties include: Alamosa, Archuleta, Conejos, Costilla, Delta, Dolores, Garfield, Gunnison, La Plata, Mesa, Montezuma, Montrose, Ouray, Rio Grande, Saguache, and San Miguel.

Pawnee Montane Skipper - The Pawnee montane skipper (skipper) has a very restricted range. It occurs only in a narrow band along the Upper South Platte River drainage in an area approximately 23 miles long by 5 miles wide. Skippers occur in dry, open ponderosa pine woodlands on outcroppings of Pikes Peak granite with a sparse understory vegetation at an elevation of 6,000 to 7,500 feet. Blue grama grass, the only known larval food plant, and prairie gayfeather, the primary adult nectar plant, are the two necessary components of the ground cover. Counties include: Douglas, Jefferson, Park, and Teller.

Mexican Spotted Owl - The Mexican spotted owl inhabits mountainous areas with steep, rocky canyons with dense, mature forests of mixed-conifer. Most nests occur on cliff ledges or in caves in steep-walled canyons. During winter in Colorado, some owls move downslope to more open canyons that contain pinyon-juniper vegetation. Counties include: Adams, Alamosa, Arapahoe, Archuleta, Boulder, Chaffee, Clear Creek, Conejos, Costilla, Custer, Dolores, Douglas, El Paso, Fremont, Garfield, Gilpin, Huerfano, Jefferson, La Plata, Larimer, Las Animas, Moffat, Montezuma, Montrose, Park, Pitkin, Pueblo, Rio Grande, Saguache, San Miguel, Summit, Teller, and Weld.

MB
MA
DA
SG
K

file WUI

DATE: June 6, 2002

TO: Districts Participating in the WUI Incentives Program

FROM: Jan Hackett

RE: Slash Burning and Reimbursement Policy

Often a landowner, participating in the WUI Incentives, wishes to burn slash after treatment. We have approved many of the applications that include slash burning. We will honor these applications. However, please advise landowners, that they will not be approved for slash burning (to be done next winter) for the remainder of the 2002 program, and will be only be reimbursed for treatments accomplished prior to September 1st. They can submit a second application after September 30, 2002 for burning, but approval will be contingent upon the availability of funds.

WE RENT MOST EVERYTHING

NAMAQUA RENTAL CENTER

3101 W. EISENHOWER BLVD.
LOVELAND, COLORADO 80538
PHONE: (970) 669-3866

PURCHASE ORDER NO.

88767

Name Marcos Fernandez Maxwell Tel. No. 203-9157
Address 6319 Shickman Ln. Lo 80538

DRIVERS LICENSE No. <u>92-141-2573</u>	CAR LICENSE No.	EXPIRATION OF RENTAL PERIOD	TIME IN
DATE OF BIRTH	OTHER I.D.	EMPLOYED BY	TIME OUT <u>6/17 12:47</u>

ITEM RENTED	MIN. RATE	NUMBER OF HOURS	ADDITIONAL HOURS	OVER NIGHT	DAY	WEEK	PAID IN ADVANCE
<u>Log splitter</u>	<u>15.00</u>	<u>1</u>	<u>7.50</u>				TOTAL RENT <u>45.00</u>
							MERCHANDISE
							DELIVERY / PICK UP
							SUB TOTAL
							SALES TAX <u>3.02</u>
							TOTAL CHARGES <u>48.02</u>
							BALANCE DUE
							REFUND

MDS TERIA

GRAND RENTAL STATION
3101 W EISENHOWER BLVD
LOVELAND, CO
80538
(970) 669-3866

THERE
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it suita
lessor
Le
court c
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wear f
A
by oth
All car
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COPY
06/17/2002 17:01
Sale:

RE/ Transaction # 6
Card Type: VISA
Acc: 4157477900017164
Exp. Date: 0404
Entry: Swiped
Sale: 48.02
Reference No.: 70948655
Response: 210669

EITHER EXPRESSED OR IMPLIED

intended use, or that it is free from defects. Lessee acknowledges that he has had an opportunity to personally inspect the equipment, and finds it suitable for the intended use. If the equipment becomes unsafe or in disrepair as a result of normal use, lessee agrees to discontinue use and notify the lessor in good working order, if available. Lessor is not responsible for any incidental or consequential damages caused by delays or otherwise. Property damage and personal injuries caused by the equipment. Lessor's rights under this contract will be borne by lessee in the event of loss, theft, or any expense involved in collection of the charges or enforcement of the lessor's rights under this contract.

validity, unenforceability of waiver or any of the provisions shall not affect the remaining provisions. Possession of lessor, and promises to return such equipment to the lessor in as good condition as it was at the effective date of the lease, natural wear, loss, theft, damage or destruction of leased property. By the lessee at the regular replacement price and all damaged equipment which may be repaired will be repaired by the Lessor, or, at lessor's option, by the lessee. Accrued rental charges can not be applied against the purchase price or cost of repairs of such damaged or lost equipment.

id continue until returned hereto. A cleaning charge will be made on items returned unclean. Lessee must obtain approval for said extension.

its theft of rental property if he:

ther, which is available only for hire, by means of threat or deception, or knowing that such use is without the consent of the person providing

of the personal property of another which is available only for hire, knowingly fails to reveal the whereabouts of or to return said property to the lessor within seventy-two hours after the time at which he agreed to return it.

the value of the property involved is less than fifty dollars.

the value of the property involved is fifty dollars or more and is less than three hundred dollars.

of the property involved is three hundred dollars or more but less than ten thousand dollars.

of the property involved is ten thousand dollars or more.

ates our entire agreement. There are no oral or other representations not included herein.

SELL TIME

SE FOR ALL TIME OUT
INCLUDING
SUNDAYS, AND HOLIDAYS
return will save you money

READ CAREFULLY

Lessee
Signature

A cleaning charge will be made on items returned unclean.

HSS RENTXTM

Everything It Takes

Final Return

167-01033

3408 N Garfield, Loveland, Denver, Colorado, CO 80538. Tel: 970-667-3966.

Cust: MR N-MENARD MAXWELL

Site: 6319 SHOCKMAN LANE

Contract: 167-02444

Addr: 6319 SHOCKMAN LANE
LOVELAND
CO
80538

LOVELAND, CO
80538

On Rents: 11 May 2002 15:45
Rent End: 12 May 2002 07:53

Cont:
Tel: 970 203 9857

Order No:
Ref:

Tel: 970 203 9857
No: 535529 CASH

Tax No: 236888

Comm Code	Qty Taken	Description	E/Code	Rtn	Loss	CONTRACT CHARGES			
						Qty	Period	Rate	TAXX
62846	1	6" TOWPOLE CHIPPER/SHREDDER	AA114090071	1		1	1 x 1st Day	165.00	6.70
3475	1	GASOLINE - PER GALLON		1				0.00	0.00
50709	1	KEY		1				0.00	0.00

I/We authorize my/our Visa Card to be debited with the value of the outstanding contract charges.

Rent Charges : 165.00
D/Waiver 317.50 : 25.87
Goods : 0.00
Transport : 0.00
Addtn Charges : 0.00

Total Excl. TAX : 190.87
TAX : 12.99

Deposit Paid : 0.00
Total Incl. TAX : 206.86

Payable : 206.86

Given Back 0.00 VISA
Payment 206.86 CHECKUE

+ 16.00 gasoline

*222.86
total

SIGNED

M. Maxwell DATE: 5-6-02

PRINT NAME:

M. Maxwell



Call 1-888-88-RENTX for a location near you. FREE CATALOG.

Dated: 10 May 02

Main Office: 6000 E. Evans Ave., Suite 2-300, Denver, CO 80222

ROCKY MOUNTAIN SHARP SHOP
1054 DENVER AV.
LOVELAND CO. 80537

Invoice

DATE	INVOICE #
5/10/02	287

BILL TO	SHIP TO
MAX 203-9857	

DUE DATE	P.O. NUMBER
6/9/02	

ITEM	DESCRIPTION	QTY	RATE	AMOUNT
SAW CHAIN/20"	SAW CHAIN 20" TO 26"	1	10.00	10.00
A2LM 375 058	SAW CHAIN RETAIL CHARGE PER LINK	72	0.28	20.16T
<p><i>paid cash 5/10/02</i></p> <p><i>chain saw sharpened — 10⁰⁰</i> <i>new chain 20.16</i></p>				
FRIDAY MORNING 5/10/02 WANTS NEW CHAIN		Subtotal		30.16
		6.7% Tax		1.35
		Total		31.51

I received \$180.00 cash for working for
Kathy Maxwell in June 2002, clearing
wood, chipping branches etc. from her
property.

Adrienne Maxwell

Adrienne Maxwell
(970) 388-7970

I received \$120.00 cash on 5-17-02 and then
another \$120.00 cash on 6-17-02. (\$240.00 total)

For work done on Kathy Maxwells
property, clearing wood, cutting, splitting
and chipping branches etc.

Tim McCaffrey

Tim McCaffrey
(970) 461-8484

I paid out \$180.00 cash to Adrienne Maxwell and
\$240.00 cash to Tim McCaffrey for helping us clear
out trees, branches, etc. from 6319 Shockman Lane
under power lines. 36 dead elms removed
completely. 24 under power lines.

Kathy Maxwell
property owner

Menard and Kathy Maxwell, owners
of this property worked, 48 additional
hours total on cleaning up their
property from wood cutting to splitting
chipping & hauling of 36 dead elms
(24) under power lines.

Kathy Maxwell
Menard Maxwell

PVHS Welcomes You

I, Chad Swank, did
remove approx. 34 Siberian Elm
trees for Kathy + Menard for the
sum of \$850.00.

payer x Kathy Maxwell
payee x Chad Swank 221-0400

**WILDLAND URBAN INTERFACE FUELS REDUCTION PROGRAM
ACCOMPLISHMENT REPORT FOR REIMBURSEMENT**

FC File

Project No. _____
(For official use only)

Applicant name (please print): KATHY MAXWELL

	Landowner Services	Contracted Services ¹	Totals
Project(s) Completed			
Accomplishment: (acres thinned, defensible spaces, cubic yards, miles of fuel break, etc.)		24 dead elm trees under power lines dropped only	A \$850. ⁰⁰
Labor Cost ²	48 hrs. - \$526. ⁰⁵ 20 more hrs. 219. ²⁰ cut, chip, split	\$420. ⁰⁰ clean up	A Labor Cost = \$1165. ²⁸
Operating Exp ³			B Oper. Exp. = \$302. ³⁹
Revenue Generated ⁴			C Revenue = 0
Project Cost			D Total Project (A+B-C) = 2317. ⁶⁷
Reimbursable to Applicant ⁵			Reimbursable Amount (.5 X D) = \$1158. ⁸⁴
			Amount Approved = \$1000. ⁰⁰

¹ Any contracted services where payment was made for services (including contracts with CSFS).

² Use up to \$10.96/hour for Landowner time. This is the maximum allowable. For projects such as defensible spaces, all contractor costs can be included here (one invoice).

³ Equipment rental, materials, etc. needed to complete project. (Capital Equipment purchases are not reimbursable.)

⁴ Any revenue generated from the sale of wood products is deducted from total project cost.

⁵ Reimbursement amount cannot exceed amount approved.

Landowner Signature: Kathy Maxwell

Date: 7-29-02

Address: 16319 Shockman Ln.

City: Loveland

County: Larimer State: CO Zip: 80538

Phone: 970-203-9857

CSFS Field Approval: Mike Babb

Reimbursement Approval: _____

Return this form to your local Colorado State Forest Service District Office. Retain documentation such as receipts and payment for six (6) years. The IRS considers reimbursable funds ordinary income. Please consult your tax advisor.

**Colorado
State**
FOREST
SERVICE

2001
2002 SFA GRANTS

Summary Totals :

Chad swank —	\$ 850. ⁰⁰	to drop trees only
Rocky Mtn. Sharp shop —	\$ 31. ⁵¹	to sharpen chainsaw
Rent X —	206. ⁸⁶	+ then buy new chain
	16. ⁰⁰	rent chipper
		gasoline
Namagna Rental —	48. ⁰³	log splitter
paid Adrienne Maxwell —	\$ 180. ⁰⁰	labor
for labor		
paid Tim McCaffrey —	\$ 240. ⁰⁰	labor
for labor		

cash paid out \$ 1572.³⁹

plus landowner hours — 526.⁰⁸
48 hours X \$10.⁹⁶

\$ 2098.47 total to date

We believe we still have approximately 15-20 hours of work left in this particular area. We can have it done by Sept. 1.

Thank You For Your Help
We REALLY appreciate it!

The Maxwells
6319 Shockman Ln.
970-203-9857
Loveland, CO 80538

WE RENT MOST EVERYTHING NAMAQUA RENTAL CENTER

3101 W. EISENHOWER BLVD.
LOVELAND, COLORADO 80538
PHONE: (970) 669-3866

PURCHASE ORDER NO.

88767

Name Miguel Fernando Maxwell Tel. No. 203-9857

Address 6318 S. Dakota Ln. Lov. 80538

Location
Equip. Used

DRIVERS LICENSE No. <u>97-146-2523</u>	CAR LICENSE No.	EXPIRATION OF RENTAL PERIOD	TIME IN
DATE OF BIRTH	OTHER I.D.	EMPLOYED BY	TIME OUT <u>6/7 12:47</u>

ITEM RENTED	MIN RATE	NUMBER OF HOURS	ADDITIONAL HOURS	OVER NIGHT	DAY	WEEK		PAID IN ADVANCE
<u>Log spl. 2400</u>	<u>15.00</u>	<u>1</u>	<u>7.50</u>					TOTAL RENT <u>45.00</u>
								MERCHANDISE
								DELIVERY / PICK UP
								SUB TOTAL
								SALES TAX <u>3.02</u>
								TOTAL CHARGES <u>48.02</u>
								BALANCE DUE
								REFUND

MDSE., MATERIALS, LOSS AND / OR BREAKAGE

THERE ARE NO WARRANTIES OF MERCHANTABILITY OR FITNESS, EITHER EXPRESSED OR IMPLIED.

There is no warranty that the equipment is suited for lessee's intended use, or that it is free from defects. Lessee acknowledges that he has had an opportunity to personally inspect the equipment, and finds it suitable for his needs and in good working condition, and that he understands its proper use. If the equipment becomes unsafe or in disrepair as a result of normal use, lessee agrees to discontinue use and notify lessor who will replace the equipment upon its return with similar equipment in good working order, if available. Lessor is not responsible for any incidental or consequential damages caused by delays or otherwise. Lessee agrees to assume the risks of, and hold lessor harmless for, property damage and personal injuries caused by the equipment.

Lessee agrees that all collection fees, attorney fees, court costs, or any expense involved in collection of the charges or enforcement of the lessor's rights under this contract will be borne by lessee in the court of the county in which the indebtedness is incurred.

The provisions of this agreement shall be severable so that the invalidity, unenforceability of waiver or any of the provisions shall not affect the remaining provisions.

Lessee assumes all responsibility for equipment while out of possession of lessor, and promises to return such equipment to the lessor in as good condition as it was at the effective date of the lease, natural wear from a responsible use excepted. Lessee shall be liable for any loss, theft, damage or destruction of leased property.

All equipment lost or damaged beyond repair shall be paid for by the lessee at the regular replacement price and all damaged equipment which may be repaired will be repaired by the Lessor, or, at lessor's option, by others, on return thereof and the cost for such repairs shall be paid by the lessee. Accrued rental charges can not be applied against the purchase price or cost of repairs of such damaged or lost equipment. All cartage charges must be borne by the lessee.

Scheduled rental rates begin when equipment leaves our store and continue until returned hereto. A cleaning charge will be made on items returned unclean. In the event the lessee desires to extend lease, notify the lessor immediately to obtain approval for said extension.

READ CAREFULLY

18-4-402. **THEFT OF RENTAL PROPERTY.** (1) A Person commits theft of rental property if he:

(a) Obtains the temporary use of personal property of another, which is available only for hire, by means of threat or deception, or knowing that such use is without the consent of the person providing the personal property, or

(b) Having lawfully obtained possession for temporary use of the personal property of another which is available only for hire, knowingly fails to reveal the whereabouts of or to return said property to the owner thereof or his representative or to the person from whom he has received it within seventy-two hours after the time at which he agreed to return it.

(2) Theft of rental property is a CLASS 2 MISDEMEANOR where the value of the property involved is less than fifty dollars.

(3) Theft of rental property is a CLASS 2 MISDEMEANOR where the value of the property involved is fifty dollars or more and is less than three hundred dollars.

(4) Theft of rental property is a CLASS 4 FELONY where the value of the property involved is three hundred dollars or more but less than ten thousand dollars.

(5) Theft of rental property is a CLASS 3 FELONY where the value of the property involved is ten thousand dollars or more.

Source: CRS 1973 AS AMENDED

I have read and agree to the terms of this contract, which constitutes our entire agreement. There are no oral or other representations not included herein.

WE SELL TIME

WE CHARGE FOR ALL TIME OUT
INCLUDING
SATURDAYS, SUNDAYS, AND HOLIDAYS
Your prompt return will save you money

READ CAREFULLY

Lessee
Signature

A cleaning charge will be made on items returned unclean.

HSS RENTXTM

Everything It Takes

First Return

1-888-88-RENTX

1-888-88-RENTX, Denver, CO 80222, TEL: 303-733-1000

1-888-88-RENTX

1-888-88-RENTX

1-888-88-RENTX

1-888-88-RENTX

1-888-88-RENTX

1-888-88-RENTX

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1-888-88-RENTX

The amount on our bill here is to be divided with the value of the outstanding contract number

Rent Charges 1.00

Washers 1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

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1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

+ 16.00 gasoline

\$222.86

total



Call 1-888-88-RENTX for a location near you. FREE CATALOG.

Main Office: 6000 E. Evans Ave., Suite 2-300, Denver, CO 80222

CUSTOMER COPY

ROCKY MOUNTAIN SHARP SHOP
1054 DENVER AV.
LOVELAND CO. 80537

Invoice

DATE	INVOICE #
5/10/02	287

BILL TO	SHIP TO
MAX 203-9857	

DUE DATE	P.O. NUMBER
6/9/02	

ITEM	DESCRIPTION	QTY	RATE	AMOUNT
SAW CHAIN/20"	SAW CHAIN 20" TO 26"	1	10.00	10.00
A2LM 375 058	SAW CHAIN RETAIL CHARGE PER LINK	72	0.28	20.16
<i>paid cash 5/10/02</i>				
<i>Chain saw sharpened — 10⁰⁰ new chain 20.16</i>				
FRIDAY MORNING 5/10/02 WANTS NEW CHAIN		Subtotal		30.16
		6.7% Tax		1.35
		Total		31.51

PVHS Welcomes You

I, Chad Swank, did
remove approx. 34 Siberian Elm
trees for Kathy + Menard for the
sum of \$250.00.

payer X Kathy Maxwell
payee X Chad M Swank 221-0400

I received \$180.00 cash for working for
Kathy Maxwell in June 2002, clearing
wood, chipping branches etc. from her
property.

Adrienne Maxwell

Adrienne Maxwell
(970) 388-7970

I received \$120.00 cash on 5-17-02 and then
another \$120.00 cash on 6-17-02. (\$240.00 total)

For work done on Kathy Maxwells
property, clearing wood, cutting, splitting
and chipping branches etc.

Tim McCaffrey

Tim McCaffrey
(970) 461-8484

I paid out \$180.00 cash to Adrienne Maxwell and
\$240.00 cash to Tim McCaffrey for helping us clear
out trees, branches, etc. from 6319 Shockman Lane
under power lines. 36 dead elms removed
completely. 24 under power lines.

Kathy Maxwell
property owner

Menard and Kathy Maxwell, owners
of this property worked, 48 additional
hours total on cleaning up their
property from wood cutting to splitting
chipping + hauling of 36 dead elms
24 under power lines.

Kathy Maxwell
Menard Maxwell

**WILDLAND URBAN INTERFACE FUELS REDUCTION PROGRAM
ACCOMPLISHMENT REPORT FOR REIMBURSEMENT**

Project No. _____
(For official use only)

Applicant name (please print): KATHY MAXWELL

	Landowner Services	Contracted Services ¹	Totals
Project(s) Completed			
Accomplishment: (acres thinned, defensible spaces, cubic yards, miles of fuel break, etc.)		24 dead elm trees, under power lines dropped only	A \$850. ⁰⁰
Labor Cost ²	48 hrs. - \$526. ⁰⁰ 20 more hrs. 219. ⁰⁰ cut, chip, split	\$420. ⁰⁰ clean up	A Labor Cost = \$1165. ²⁸
Operating Exp ³			B Oper. Exp. = \$302. ³⁹
Revenue Generated ⁴			C Revenue = 0
Project Cost			D Total Project (A+B-C) = 2317. ⁶⁷
Reimbursable to Applicant ⁵			Reimbursable Amount (.5 X D) = \$1158. ⁸⁴
			Amount Approved = \$1000. ⁰⁰

¹ Any contracted services where payment was made for services (including contracts with CSFS).

² Use up to \$10.96/hour for Landowner time. This is the maximum allowable. For projects such as defensible spaces, all contractor costs can be included here (one invoice).

³ Equipment rental, materials, etc. needed to complete project. (Capital Equipment purchases are not reimbursable.)

⁴ Any revenue generated from the sale of wood products is deducted from total project cost.

⁵ Reimbursement amount cannot exceed amount approved.

Landowner Signature: Kathy Maxwell

Date: 7-29-02

Address: 6319 Shockman Ln.

City: Cleveland

County: Larimer State: CO Zip: 80538

Phone: 970-203-9857

CSFS Field Approval: _____

Reimbursement Approval: _____

Return this form to your local Colorado State Forest Service District Office. Retain documentation such as receipts and payment for six (6) years. The IRS considers reimbursable funds ordinary income. Please consult your tax advisor.

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Summary Totals :

Chad swank —	\$ 850. ⁰⁰	to drop trees only
Rocky Mtn. Sharp shop —	\$ 31. ⁵¹	to sharpen chainsaw
Rent X —————	206. ⁸⁶	+ then buy new chain
	16. ⁰⁰	rent chipper
		gasoline
Namagua Rental —	48. ⁰²	log splitter
paid Adrienne Maxwell —	\$ 180. ⁰⁰	labor
for labor		
paid Tim McCaffrey —	\$ 240. ⁰⁰	labor
for labor		

cash paid out \$ 1572.³⁹

plus landowner hours — 526.⁰⁸
48 hours X \$10.⁹⁶

\$ 2098.47 total to date

We believe we still have approximately
15-20 hours of work left in this particular
area. We can have it done by Sept. 1.

Thank You For Your Help
We REALLY appreciate it!

The Maxwells
6319 Shockman Ln.
970-203-9857
Loveland, CO 80538

**WILDLAND URBAN INTERFACE FUELS REDUCTION PROGRAM
APPLICATION FOR INCENTIVES PROGRAM**

PROJECT NUMBER: 75-110
(For Official Use Only)

NAME: KATHY MAXWELL
ADDRESS: 6319 SHOCKMAN LN.
City: LOVELAND **State:** CO
Zipcode: 80538

TELEPHONE NO: 970-203-9857

PROJECT LEGAL DESCRIPTION: _____

PRACTICE OBJECTIVE: To clear dead trees we feel poses a fire danger.

START DATE: MAY 11-02

COMPLETION DATE: MAY 12-02 (No later than Sept. 1, 2002)

Practice Title (From green sheet)	Quantity Requested	Quantity Approved	Rate	C/SAmount Requested	C/SAmount Approved
Example: Thinning	5	4	\$200	\$1000	800
THINNING	20 trees				
PRUNING	20"				
DISPOSAL	20				
Defensible Space			1000	1000	1000

Total Amount Approved: 1000

Request for cost-share assistance under this program is to meet the objective stated above. If cost-sharing is approved for the requested practice, I agree to cover expenses at the time of implementation, knowing I will be receiving cost-share funds not exceeding 50% of actual cost. (*Examples: if actual cost of the example above is \$1600, cost-share reimbursed is \$800, the approved amount. If the actual cost is \$1200, the reimbursement is \$600. If the actual cost is \$2,000, a cost-share payment of \$800 is made.* I understand that I will not be reimbursed for any expenses incurred prior to approval of my application. I also understand that the practice needs to be completed by September 1, 2002.

LANDOWNER SIGNATURE: Kathy Maxwell **DATE:** 5-8-02

CSFS FIELD REVIEW SIGNATURE: Mike Bork **DATE:** 5-10-02

C/S APPROVED: \$ 1000

APPROVING OFFICIAL: Janet Hackett **DATE:** 5-15-02

Program eligibility is without regard to race, color, religion, national origin, age, sex, marital status or disability. For more information contact the Colorado State Forest Service at (970) 491-6303.

**Colorado
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FOREST
SERVICE**

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**WILDLAND URBAN INTERFACE FUELS REDUCTION
INCENTIVES PROGRAM PROJECT PLAN**

MENARD & KATHY MAXWELL

Landowner/HOA

6319 SHOCKMAN LANE

Street or PO Box

LOVELAND, CO 80538

City, State, Zip Code

970.203-9857

Telephone Number

Mike Babler

Resource Professional

5-7-02

Date

STATE FOREST SERVICE

Address

491-8440

Telephone #

The Wildland Urban Interface Incentives Program project plan, prepared at my request, reflects objectives that I have for my property to reduce hazardous fuels. It contains implementation recommendations that have been reviewed with me by a natural resource professional.

Kathy Maxwell

Landowner

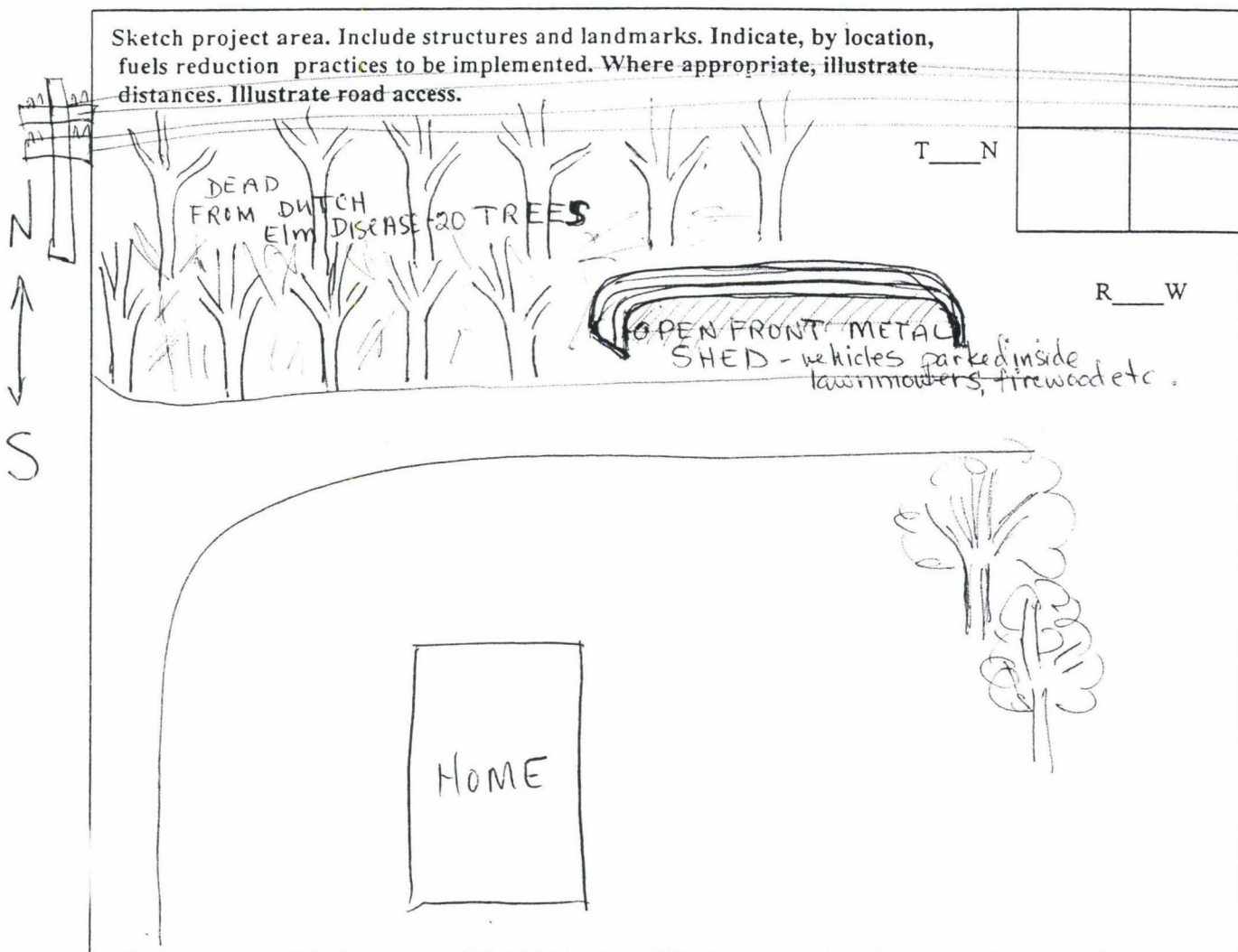
5-8-02

Date

**Colorado
State**
FOREST
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WILDLAND URBAN INTERFACE FUELS REDUCTION PROGRAM PROJECT PLAN ILLUSTRATION

Sketch project area. Include structures and landmarks. Indicate, by location, fuels reduction practices to be implemented. Where appropriate, illustrate distances. Illustrate road access.



Please provide any other valuable information:

Our lot is approximately 2.5 acres.

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**WILDLAND URBAN INTERFACE FUELS REDUCTION PROGRAM
PROJECT PLAN**

OBJECTIVES: What do you want to achieve by this practice? (if more than one objective list priority)

Example: To decrease hazardous fuels around my home and improve forest health).

We realize we have a fire hazard on our property, by keeping these dead standing trees. It has also prevented us from mowing the grasses beneath these trees because there are much branches down underneath. Grass gets 1 1/2' tall at times

PROJECT LEGAL DESCRIPTION: Section: _____ T _____ R _____
(treatment area)

PLEASE DESCRIBE THE CURRENT CONDITIONS OF THE TREATMENT AREA:

(Vegetation, Soils, Water, Wildlife, etc., worth noting for planning purposes. Please use additional paper if needed.)

2 rows of Elm trees
no water on property
Row of lilac bushes
Grass growth below trees
Rattlesnakes, bullsnakes, skunks, porcupines, deer, fox
Coyotes, alot of birds.

LIST PRACTICE WITH PROJECTED COMPLETION DATE:

PRACTICE	COMPLETION DATE
Cut down 20 dead elms	MAY 11-02
Cut limbs of trunks	MAY 12-02
Dispose of at WASTE Disposal	MAY 12-02

**WILDLAND URBAN INTERFACE FUELS REDUCTION PROGRAM
APPLICATION FOR INCENTIVES PROGRAM**

PROJECT NUMBER: 75-073
(For Official Use Only)

NAME: WAYNE & DOROTHY BAASCH
ADDRESS: 8985 W 93RD PL
City: ARVADA **State:** CO
Zipcode: 80005

TELEPHONE NO: 303-422-0215

PROJECT LEGAL DESCRIPTION: _____

PRACTICE OBJECTIVE: REMOVE SLASH PILES

START DATE: MAY 1, 2002

COMPLETION DATE: SEPT 1, 2002 (No later than Sept. 1, 2002)

Practice Title (From green sheet)	Quantity Requested	Quantity Approved	Rate	C/S Amount Requested	C/S Amount Approved
Example: Thinning	5	4	\$200	\$1000	800
SLASH DISPOSAL	5 ACRES		250	\$1250	
HAULING					

Total Amount Approved: _____

Request for cost-share assistance under this program is to meet the objective stated above. If cost-sharing is approved for the requested practice, I agree to cover expenses at the time of implementation, knowing I will be receiving cost-share funds not exceeding 50% of actual cost. (*Examples: if actual cost of the example above is \$1600, cost-share reimbursed is \$800, the approved amount. If the actual cost is \$1200, the reimbursement is \$600. If the actual cost is \$2,000, a cost-share payment of \$800 is made.* I understand that I will not be reimbursed for any expenses incurred prior to approval of my application. I also understand that the practice needs to be completed by September 1, 2002.

LANDOWNER SIGNATURE: [Signature] **DATE:** 04/22/2002

CSFS FIELD REVIEW SIGNATURE: [Signature] **DATE:** 5/1/2002

C/S APPROVED: \$ 1250

APPROVING OFFICIAL: [Signature] **DATE:** 5-7-02

Program eligibility is without regard to race, color, religion, national origin, age, sex, marital status or disability. For more information contact the Colorado State Forest Service at (970) 491-6303.

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Wildland Urban Interface D-Space Program

General procedures for Application, Approval and Payment:

- Step 1.** Landowner contacts CSFS District Office to complete application. Please review all materials in the application packet. If a Forest Stewardship Plan is not currently in place, complete the Management Plan forms with a natural resource professional. A CSFS representative must approve the plan. Landowner fills out the Application For Cost-Share. Assistance in filling out this documentation can be received from the CSFS. Following completion of these forms, contact CSFS to arrange for Step 2.
- Step 2. CSFS Field Review.** Contact your local CSFS District for field review and signature. If the review determines your application meets plan objectives and program intent, it is signed in "field review" space by CSFS. CSFS District Office keeps the application and the management plan. Please keep copies for your files. **(Expenses incurred prior to approval of application will not be reimbursed).**
- Step 3. Application submission:** CSFS District will submit signed applications to the State Office (SO). SO documents the applications, obligates funds, and sends a letter with the Accomplishment Report to each LO. The Accomplishment Report serves as a request for payment, and documents completed activities and expenditures.
- Step 4. LO implementation.** Landowner implements project(s) according to their management plan.
- Step 5. CSFS field approval.** Upon completion of practices, landowner notifies local CSFS district personnel. Landowner completes Accomplishment Report (with assistance from CSFS if necessary) and submits to CSFS District Office as a request for reimbursement (invoice). LO documents all costs and revenues, and submits receipts with the Accomplishment Report. CSFS certifies practice(s) completed according to specifications and approves landowner payment (on the Accomplishment Report).
- Step 6. Accomplishment Report submission.** CSFS District sends completed Accomplishment Report to SO.
- Step 7. SO payment issued.** Cost-share payment is issued from SO to the landowner.

A Homeowners Association, representing one entity, with one management plan, may submit one application and one report, but all projects are itemized.

Wildland Urban Interface Incentives D-Space Program 2002

PROJECT NUMBER: _____
(For Official Use Only)

NAME: _____

MAILING ADDRESS: _____

City: _____ **State:** _____

Zipcode: _____

TELEPHONE NO: _____

PROJECT LOCATION/LEGAL DESCRIPTION: _____

PRACTICES TO BE COMPLETED BY: _____

Practice Title	Quantity Requested	Quantity Approved	Fate	C/SAmount Requested	C/SAmount Approved
<i>D-Space</i>	#		\$ 1,200		
<i>Thinning</i>	acres		\$ 500		
<i>Pruning</i>	acres		\$ 75		
<i>Broadcast Burn</i>	acres		\$ 200		
<i>Slash Disposal - Burn</i>	acres		\$ 100		
<i>Slash Disposal - Haul</i>	acres		\$ 300		
<i>Slash Disposal - Chip</i>	acres		\$ 300		
<i>Fuel Break</i>	acres		\$ 1,200		

Total: _____

Request for cost-share assistance under this program is to meet the objective stated above. If cost-sharing is approved for the practice requested, I agree to cover expenses at the time of implementation, knowing I will be receiving cost-share funds not exceeding 50% of actual cost. **I understand that I will not be reimbursed for any expenses incurred prior to approval of my application.** Work must be completed according to approved plan and application, and meet Colorado State Forest Service minimum guidelines. There are no partial payments.

LANDOWNER SIGNATURE: _____ **DATE:** _____

CSFS FIELD REVIEW SIGNATURE: _____ **DATE:** _____
(Additional USFWS guidelines addressed)

C/S APPROVED: _____ **AMOUNT:** \$ _____ **DATE:** _____

Program eligibility is without regard to race, color, religion, national origin, age, sex, marital status or disability. For more information contact your local Colorado State Forest Service District Office.



2002 SFA Grants

**WILDLAND URBAN INTERFACE INCENTIVES
D-SPACE PROGRAM
MANAGEMENT PLAN
2002**

Applicant

Street or PO Box

City, State, Zip Code

Telephone Number

Plan Acres

The Wildland Urban Interface Incentives Program management plan, prepared at my request, reflects objectives that I have for my property to reduce hazardous fuels. It contains implementation recommendations that have been reviewed with me by a natural resource professional.

Applicant

Date

CSFS Approval

Date

**Colorado
State
FOREST
SERVICE**

2002 SFA Grants

WILDLAND URBAN INTERFACE INCENTIVES D-SPACE PROGRAM PLAN

PROJECT physical address or legal description:

Section	Township	Range
---------	----------	-------

OBJECTIVES: What do you want to achieve by this practice? (If more than one objective, list in order of priority).

Example: To reduce the risk of mountain pine beetle, and with the proper slash disposal, improve forest health.

CURRENT NATURAL RESOURCE CONDITIONS:

Vegetative cover (trees, shrubs, grasses) on the property:

Fire hazard rating and risk factors of the area:

Summary of insect and disease presence, damage, or risk, including information on significant incidents, historical and current:

Soil Type(s) and limitations:

Water on Site:

Wildlife (or sign) present:

Threatened or Endangered plants or animals that may inhabit the property:

Cultural or historic resources on the property:

Recreational use on the property:

Noxious weeds present:

WILDLAND URBAN INTERFACE INCENTIVES D-SPACE PROGRAM PLAN ILLUSTRATION

Sketch project area. Include structures and landmarks. Indicate, by location, fuels reduction practices to be implemented. Where appropriate, illustrate distances. Illustrate road access.

T ____ N

	R ____ W

LIST PRACTICE WITH PROJECTED COMPLETION DATE:

PRACTICE	COMPLETION DATE

Wildland Urban Interface Incentives D-Space Program

The following is a list of practices eligible for cost-share reimbursement, and the maximum reimbursable amount for that practice. Refer to Colorado State Forest Service (CSFS) standards and guidelines. An approved project plan and application are necessary for participation. Cost-share approved is based on available funding. **Tools and Equipment purchased are not reimbursable.**

Practice	Maximum Cost-Share
Defensible space (D-space) <i>Removal of both horizontal and vertical fuel hazard around a home.</i>	1,200 per homesite. This includes tree cutting, pruning and slash disposal
Forest Thinning <i>Treatment made to reduce forest density, decreasing heavier fuels, enhancing growth and improving forest health..</i>	\$500/acre
Tree Pruning <i>Removal of branches from a standing tree To remove vertical fuel continuity.</i>	\$75/acre
Interface Broadcast Burn <i>A planned fire within well-defined boundaries to reduce hazardous fuel loading.</i>	\$200/acre
Slash Disposal <i>The removal/treatment of treetops and branches after forest management activities. Include just one method.</i>	
Burning (includes piling)	\$100/acre
Chipping	\$300/acre
Hauling	\$300/acre
Fuel breaks <i>A wide strip of land, usually 132'-198' wide, on which vegetation has been removed or reduced.</i>	\$1,200/acre This includes tree cutting, pruning and slash disposal
<ul style="list-style-type: none"> • These are not-to-exceed amounts and represent 50% of actual cost. The value of wood products generated from these activities must be deducted from total project cost to determine actual cost. • Use \$ 11.00/hr labor rate if landowner is doing the work. • Expenses incurred prior to approval of application will not be reimbursed • For more information contact your local CSFS district office. • You are encouraged to solicit bids when contractor estimates are over maximum allowable cost-share amounts. 	

Defensible Space Thinning Standards

The measure of fuel hazard refers to its **continuity**, both horizontal (across the ground) and vertical (from the ground up into the vegetation crown) continuity.

Fuels with a high degree of both vertical and horizontal continuity are the most hazardous, particularly when they occur on slopes. Heavier fuels (brush and trees) are more hazardous (i.e. produce a more intense fire) than light fuels such as grass.

Mitigation of wildfire fuel hazards focuses on breaking up the continuity of fuels, both horizontally and vertically. Additional distance between fuels is required on slopes.

STANDARDS

for wildland fire fuel mitigation

Tree: a woody perennial, usually having one dominant vertical trunk and a height greater than 15 feet at maturity.

Spacing Requirements: spacing between trees must be a **minimum** of **10 feet** between the edges of the crowns. This does not apply to mature stands of aspen trees where the recommendations for removal of ladder fuels (listed below) have been complied with. However, in areas of aspen regeneration (young trees) the spacing guidelines shall be followed.

Brush and Shrubs: woody plants, smaller than trees, often formed by a number of vertical or semi-upright branches arising close to the ground. Brush is smaller than shrubs and can be either woody or herbaceous vegetation.

Spacing Requirements: Spacing between clumps of brush and/or shrubs must be **2½ times (2½X)** the height of the vegetation. Maximum diameter of clumps shall be **2 times (2X)** the height of the vegetation. All measurements are made from the edges of vegetation crowns.

For example: For shrubs 6 ft.-high-spacing between shrub clumps must be 15 feet or more apart (measured from the edges of the crowns of vegetation clumps). The diameter of shrub clumps must not exceed 12 feet (measured from the edges of the crowns). Branches must be pruned to a height of 3 feet.



Certain brush species such as Gambel oak, serviceberry, and snowberry will resprout vigorously following cutting. Applying herbicide to stumps will be necessary for these species, in order to effectively reduce the long term fire hazard.

Ladder Fuels: vegetative materials with vertical continuity that allows fire to burn from ground level up into the branches and crowns of trees. Potentially very hazardous, but easy to mitigate. No ladder fuels can be allowed under tree canopies. In all other areas, prune all branches of shrubs (or trees) up to a height of 10 feet above ground (or one-half [½] the height, whichever is least). The pruned material must be chipped on or removed from the site.

Grasses: Keep dead, dry grass mowed to less than 6 inches.

Slope Adjustment Factors distance from structure for fuel modification:

Minimum distance from a structure for brush, shrub, and tree fuel modification is **70 feet on level ground**. Where only grasses exist *and no additional vegetative landscaping* is planned, minimum distance is 30 feet. Otherwise follow the slope adjustment table below.

On slopes *downhill* from the house, defensible space thinning must be completed following the distances in the table below. Uphill and side distance remains 70 feet unless your lot slopes in multiple directions.

1% to 20% slope =

100' for brush/shrubs with 3x height separation distance
100' for trees with 10-foot crown separation distance
30' for grass; keep dead, dry grass mowed to 6 inches

21% to 40% slope =

150' for brush/shrubs with 4x height separation distance
150' for trees with a 20-foot crown separation distance
50' for grass; keep dead, dry grass mowed to 6 inches

>40% slope =

200' for brush/shrubs with 6x height separation distance
200' for trees with a 30-foot crown separation distance
75' for grass; keep dead, dry grass mowed to 6 inches

B. Additional USFWS Guidelines

The USFWS has adopted the CSFS guidelines and has made some modifications to provide additional protection to federally-listed species and their habitats. It is understood that many properties do not contain federally listed threatened or endangered species, or their habitat. However, following these guidelines allows important defensible space work to proceed while maintaining compliance with the ESA.

The USFWS is concerned with minimizing disturbances in areas with federally-listed species and their habitats and has, therefore, modified the CSFS vegetation spacing requirements, as shown in Table 2. The USFWS modifications include a restriction on the size of the defensible space that should not be exceeded (see Table 2). The USFWS modifications also include a restriction on the vegetation separation distance that should not be exceeded as well. As a general practice, surface disturbances must be avoided in order to avoid the potential for soil erosion and for sedimentation to occur in streams.

Table 2. USFWS Modified Defensible Space Distance and Vegetation Spacing Requirements.

Slope of Property	USFWS Defensible Space Distance* and Vegetation Treatment Guidelines**
1% to 20% slope	100' for brush/shrubs with 3x to 4x height separation distance 100' for trees with a crown separation distance not to exceed 20 ft. 30' for grass; grass mowed to 6 inches
21% to 40% slope	150' for brush/shrubs with 4x to 5x height separation distance 150' for trees with a crown separation distance not to exceed 30 ft. 50' for grass; grass mowed to 6 inches
>40% slope	200' for brush/shrubs with 6x to 7x height separation distance 200' for trees with a crown separation distance not to exceed 40 ft. 75' for grass; grass mowed to 6 inches

* Defensible space distances presented here are considered to be Maximum Allowable Distances under the USFWS guidelines.

** Bold text indicates USFWS modifications from the CSFS standard guidelines.

For example, in an area where federally-listed species may be present, the defensible space distance for a home built on a 25% slope should exactly 150 feet on the downhill side of the home. The distance between tree crowns within this defensible space should not exceed 30 feet. If the shrubs are 3-feet high, then the spacing between the shrubs should be at least 12 feet apart but no more than 15 feet apart.

Southwestern Willow Flycatcher Habitat - In areas where the flycatcher may occur (based on county and presence of suitable riparian habitat), USFWS has an additional requirement that the size of the clump of bushes or shrubs be at least 30 feet in length by 30 feet in width. This requirement is for the purpose of retaining clumps of vegetation that will be large enough to support a flycatcher. Spacing requirements for between the patches is provided in Table 2. If a clump(s) of flycatcher habitat is retained within the normal defensible space area per these guidelines, an expanded area of defensible space thinning work is permitted outside the limited distance to allow effective defensible space to be created. The additional area should not exceed the size of the retained clumps of habitat.

Southwestern Willow Flycatcher Habitat - In areas where the flycatcher may occur (based on county and presence of suitable riparian habitat), USFWS has an additional requirement that the size of the clump of bushes or shrubs be at least 30 feet in length by 30 feet in width. This requirement is for the purpose of retaining clumps of vegetation that will be large enough to support a flycatcher. Spacing requirements for between the patches is provided in Table 2. If a clump(s) of flycatcher habitat is retained within the normal defensible space area per these guidelines, an expanded area of defensible space thinning work is permitted outside the limited distance to allow effective defensible space to be created. The additional area should not exceed the size of the retained clumps of habitat.

Canada Lynx Habitat - In locations above 8,000 feet elevation and slopes greater than 40%, in lynx habitat counties, defensible space fuels work can be conducted to a distance of 120 feet without additional consideration. If, however, an effective defensible space cannot be established without working beyond the 120 foot guidelines, the homeowner should contact the USFWS.

Ladder Fuels: Use existing CSFS guidelines.

Brush and Shrubs: USFWS guidelines allow for mechanical treatments only and do not cover the application of herbicide.

Grasses: Keep grass mowed to 6 inches. Grasses should be mowed, rather than clearing the ground surface, in order to minimize the disturbance of roots and to provide for conditions that allow the vegetation to recover. Other than defining a maximum allowable distance for defensible space in grasses (see Table 2), the USFWS guidelines do not modify the CSFS standard guidelines. There are no USFWS guideline restrictions on vegetation height for watered lawns.

C. Federally-Listed Species of Concern

The following text briefly describes the habitat characteristics of federally-listed species that may be affected by the development of defensible space around privately-owned residences/occupied structures in Colorado. Also provided are the Colorado counties in which these species may occur:

Preble's Meadow Jumping Mouse - The Preble's meadow jumping mouse (Preble's) inhabits areas with dense, herbaceous riparian (streamside) or wetland vegetation along the Front Range plains and foothills of Colorado below 7600 feet. Preble's habitat is considered to also include the 100-year floodplain plus 300 feet on both sides of the floodplain, or, in the absence of the 100-year floodplain, Preble's habitat is considered to include the riparian area of the stream plus a 300 foot buffer on both sides of the stream. Counties include: Adams, Arapahoe, Boulder, Denver, Douglas, Elbert, El Paso, Jefferson, Larimer, Morgan, Pueblo, and Weld.

Canada Lynx - The lynx occurs in mesic (moist) coniferous forests that have cold, snowy winters and provide a prey base of snowshoe hare. In Colorado, the primary vegetation that contributes to lynx habitat is lodgepole pine, subalpine fir, and Engelmann spruce with an elevation range of 8,000 to 11,500 feet. Counties include: Alamosa, Archuleta, Boulder, Chaffee, Clear Creek, Conejos, Costilla, Custer, Delta, Dolores, Eagle, Fremont, Garfield,

Gilpin, Grand, Gunnison, Hinsdale, Huerfano, Jackson, Jefferson, Lake, La Plata, Larimer, Las Animas, Mesa, Mineral, Moffat, Montezuma, Montrose, Ouray, Park, Pitkin, Pueblo, Rio Blanco, Rio Grande, Routt, Saguache, San Juan, San Miguel, and Summit.

Greenback Cutthroat Trout - The greenback cutthroat trout is found in isolated headwaters of mountain streams of the South Platte and Arkansas River drainages. It occurs in clear, cold and well-oxygenated streams with gravelly to rocky substrate and abundant riparian vegetation. Counties include: Boulder, Clear Creek, Custer, Douglas, El Paso, Huerfano, Lake, Larimer, Park, and Pueblo.

Southwestern Willow Flycatcher - The southwestern willow flycatcher (flycatcher) breeds in southwestern Colorado in dense riparian tree and shrub communities associated with rivers, swamps, and other wetlands. Common tree and shrub species include willows, boxelder, tamarisk, and Russian olive. Minimum vegetation patch size is 30 feet long by 30 feet wide by 5 feet high; vegetation patches smaller than this size are considered too small to support a flycatcher. Counties include: Alamosa, Archuleta, Conejos, Costilla, Delta, Dolores, Garfield, Gunnison, La Plata, Mesa, Montezuma, Montrose, Ouray, Rio Grande, Saguache, and San Miguel.

Pawnee Montane Skipper - The Pawnee montane skipper (skipper) has a very restricted range. It occurs only in a narrow band along the Upper South Platte River drainage in an area approximately 23 miles long by 5 miles wide. Skippers occur in dry, open ponderosa pine woodlands on outcroppings of Pikes Peak granite with a sparse understory vegetation at an elevation of 6,000 to 7,500 feet. Blue grama grass, the only known larval food plant, and prairie gayfeather, the primary adult nectar plant, are the two necessary components of the ground cover. Counties include: Douglas, Jefferson, Park, and Teller.

Mexican Spotted Owl - The Mexican spotted owl inhabits mountainous areas with steep, rocky canyons with dense, mature forests of mixed-conifer. Most nests occur on cliff ledges or in caves in steep-walled canyons. During winter in Colorado, some owls move downslope to more open canyons that contain pinyon-juniper vegetation. Counties include: Adams, Alamosa, Arapahoe, Archuleta, Boulder, Chaffee, Clear Creek, Conejos, Costilla, Custer, Dolores, Douglas, El Paso, Fremont, Garfield, Gilpin, Huerfano, Jefferson, La Plata, Larimer, Las Animas, Moffat, Montezuma, Montrose, Park, Pitkin, Pueblo, Rio Grande, Saguache, San Miguel, Summit, Teller, and Weld.

A map of Colorado showing the boundaries of its 64 counties. Overlaid on this is a thick black line representing the district boundaries of the Colorado State Forest Service. Within these districts, specific office locations are marked with a star and labeled. The districts and their respective offices are: Steamboat (in Routt County), Fort Collins (in Larimer County), Fort Morgan (in Morgan County), Granby (in Grand County), Boulder (in Boulder County), Golden (in Jefferson County), Denver (in Denver County), Franktown (in Douglas County), Woodland Park (in Teller County), Salida (in Chaffee County), Gunnison (in Gunnison County), Montrose (in Montrose County), Canon City (in Fremont County), La Junta (in Otero County), Durango (in La Plata County), and Alamosa (in Alamosa County). Other county names shown include Moffat, Jackson, Larimer, Weld, Logan, Sedgwick, Phillips, Rio Blanco, Garfield, Eagle, Summit, Clear Creek, Gilpin, Brookfield, Adams, Washington, Yuma, Arapahoe, Elbert, Kit Carson, Cheyenne, Kiowa, Prowers, Bata, Las Animas, Costilla, Conejos, Archuleta, Mineral, Hinsdale, San Juan, Dolores, San Miguel, Ouray, Delta, Mesa, Pitkin, Lake, Park, El Paso, Lincoln, Crowley, Bent, and Baca.

COLORADO STATE FOREST SERVICE

James E. Hubbard, State Forester
Colorado State University
203 Forestry Bldg.
Fort Collins, Colorado 80523-5060
(970) 491-6303

ALAMOSA DISTRICT

Colorado State Forest Service
P. O. Box 1137
129A Santa Fe
Alamosa, CO 81101-1137
(719) 587-0915

FORT COLLINS DISTRICT

Colorado State Forest Service
Building #1052, Foothills Campus
Colorado State University
Fort Collins, CO 80523-5075
(970) 491-8660

GRANBY DISTRICT

Colorado State Forest Service
P. O. Box 69
201 E Jasper Ave.
Granby, CO 80446-0069
(970) 887-3121

LA VETA DISTRICT

Colorado State Forest Service
P. O. Box 81
Moore & Poplar Streets
La Veta, CO 81055-0081
(719) 742-3588

BOULDER DISTRICT

Colorado State Forest Service
5625 Ute Highway
Longmont, CO 80503-9130
(303) 823-5774

FORT MORGAN DISTRICT

Colorado State Forest Service
801 East Burlington
Fort Morgan, CO 80701-3638
(970) 867-5610

GRAND JUNCTION DISTRICT

Colorado State Forest Service
State Services Building
222 South 6th Street, Room 416
Grand Junction, CO 81501-2771
(970) 248-7325

MONTROSE DISTRICT

Colorado State Forest Service
102 Par Place, Suite 3
Montrose, CO 81401-4196
(970) 249-9051

CANON CITY DISTRICT

Colorado State Forest Service
515 McDaniel Blvd., Industrial Park
Canon City, CO 81212-4164
(719) 275-6865

FRANKTOWN DISTRICT

Colorado State Forest Service
P. O. Box 485
2068 North State Highway 83
Franktown, CO 80116-0485
(303) 660-9625

GUNNISON DISTRICT

Colorado State Forest Service
P. O. Box 1390
Gunnison, CO 81230-1390
(970) 641-6852

SALIDA DISTRICT

Colorado State Forest Service
7980 West Highway 50
Salida, CO 81201-9571
(719) 539-2579

DURANGO DISTRICT

Colorado State Forest Service
P. O. Box 7233
Fort Lewis College Campus
Durango, CO 81301-3908
(970) 247-5250

GOLDEN DISTRICT

Colorado State Forest Service
1504 Quaker Street
Golden, CO 80401-2956
(303) 279-9757

LA JUNTA DISTRICT

Colorado State Forest Service
208 Santa Fe Avenue, Suite 21
La Junta, CO 81050-0977
(719) 384-9087

STEAMBOAT SPRINGS DISTRICT

Colorado State Forest Service
P. O. Box 773657
1475 Pine Grove Road, Suite 202A
Steamboat Springs, CO 80477-3657
(970) 879-0475

WOODLAND PARK DISTRICT

Colorado State Forest Service
P. O. Box 9024
113 South Boundary
Woodland Park, CO 80866-9024
(719) 687-2921

*Call to Jan
Lacina participate ?*

File
**Colorado
State
FOREST
SERVICE**

Colorado State University
Fort Collins, Colorado 80523-5060
(970) 491-6303
FAX: (970) 491-7736

*2001
2002 is different
slightly*

March 22, 2001

Hazardous Fuels Reduction Incentives Program

Dear Concerned Landowner,

Thank you for your interest in reducing wildfire hazard on your property. Fuels reduction has been proven to be an effective means of decreasing the potential threat of catastrophic wildfire. Your efforts will assist in the protection of your home and community.

Included in this packet are instructions for program procedure. Accountability is important. The process is simplified, however, to ensure clear understanding and practical implementation on the ground. Funding for this program has been supplied, in part, by the Title IV Incentives Program awarded to Colorado. This title will be referred to on the forms.

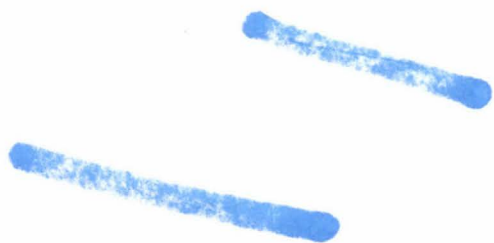
Included in this letter are the following:

1. **Application** for cost-share (blue):
2. **Project Plan** (yellow).
3. **List of Practices** (green) with cost-share rates.

General procedures are:

1. **Landowner (LO) application.** LO completes the project plan and fills out cost-share application (blue). Assistance can be obtained through the Colorado State Forest Service (CSFS) or approved Home Owner's Association (HOA) personnel.
2. **CSFS Field Review.** If everything is in order, cost-share application is signed in "field review" space and sent to the address below (# 3). **(Expenses incurred prior to approval of application will not be reimbursed).**
3. **Application submission:**
Attn: Jan Hackett
Colorado State Forest Service
Colorado State University
Forestry Bldg. 203
Fort Collins, CO 80523-5060

Copies of all cost-share applications will be kept at the State Office (SO).



4. **Application approval.** The SO approves application, and a letter with a copy of application is sent to the landowner, or HOA. Also sent at this time will be an Accomplishment Form (pink). This form will serve as a request for payment and will also denote cooperator expenditures.
5. **LO implementation.** Landowner implements project(s) according to project plan.
6. **CSFS Field approval.** Upon practice completion landowner notifies local CSFS, or designated professional. Landowner will complete accomplishment form (pink) that serves as a request for payment. If any wood product is sold, this amount will be deducted from the total project cost. Landowner documents all costs and revenues and includes receipts. Also on the accomplishment form is an area to indicate cooperator expenditures (time, monetary amount). CSFS, or designated professional, certifies practice(s) completed according to specifications and approves landowner payment.
7. **LO Accomplishment submission.** Landowner sends completed accomplishment form to SO. One form, with total, may be submitted by HOA, but all projects will be itemized.
8. **SO payment issued.** Cost-share payment is sent from SO to landowner.

Please look through this packet and review the instructions. If your project(s) qualifies, and you are interested in participating please begin the process as described in step #1. Contact the Colorado State Forest Service (district or state office) or your HOA if you have any questions. Your CSFS district contact phone number is:

Canyon City District	(719) 275-6865	
Spring Creek Sub-Division Project Forester		(303) 816-5886
Grand Junction District	(970) 248-7325	
Woodland Park District	(719) 687-2951.	

We hope this process will be straightforward, and your accomplishments rewarding.

Sincerely,



Jan J. Hackett
Fuels Reduction Incentives Program (Title IV) Coordinator
Colorado State Forest Service

**FUELS REDUCTION INCENTIVES PROGRAM (TITLE IV)
APPLICATION FOR COST-SHARE**

PROJECT NUMBER: _____
(For Official Use Only)

NAME: _____

ADDRESS: _____
City: _____ **State:** _____
Zipcode: _____

TELEPHONE NO: _____

PROJECT LEGAL DESCRIPTION: _____

PRACTICE OBJECTIVE: _____

START DATE: _____

COMPLETION DATE: _____ (No later than Sept. 1, 2001)

Practice Title	Quantity Requested	Quantity Approved	Rate	C/S Amount Requested	C/S Amount Approved
<i>Example: Tree Pruning</i>	5 acres	4 acres	\$ 75/acre	\$375.00	\$300.00

Request for cost-share assistance under this program is to meet the objective stated above. If cost-sharing is approved for the practice requested, I agree to cover expenses at the time of implementation, knowing I will be receiving cost-share funds not exceeding 50% of actual cost. I understand that I will not be reimbursed for any expenses incurred prior to approval of my application. I also understand that the practice needs to be completed by September 1, 2001.

LANDOWNER SIGNATURE: _____ **DATE:** _____

CSFS FIELD REVIEW SIGNATURE: _____ **DATE:** _____

C/S APPROVED: _____

APPROVING OFFICIAL: _____ **DATE:** _____

Program eligibility is without regard to race, color, religion, national origin, age, sex, marital status or disability. For more information contact the Colorado State Forest Service at (970) 491-6303.

**Colorado
State
FOREST
SERVICE**

**FOREST STEWARDSHIP
FUELS REDUCTION INCENTIVES PROGRAM (TITLE IV)
PROJECT PLAN**

Landowner/HOA

Street or PO Box

City, State, Zip Code

Telephone Number

Resource Professional

Date

Address

Telephone #

The Forest Stewardship – Fuels Reduction Incentives Program project plan, prepared at my request, reflects objectives that I have for my property to reduce hazardous fuels. It contains implementation recommendations that have been reviewed with me by a natural resource professional.

Landowner

Date

**FOREST STEWARDSHIP – INCENTIVES PROGRAM (TITLE IV)
PROJECT PLAN**

OBJECTIVES: What do you want to achieve by this practice, if more than one objective list priority:

PROJECT LEGAL DESCRIPTION:
(treatment area)

PLEASE DESCRIBE THE CURRENT CONDITIONS OF THE TREATMENT AREA:
(Vegetation, Soils, Water, Wildlife, etc., worth noting for planning purposes. Please use additional paper if needed.)

LIST PRACTICE WITH PROJECTED COMPLETION DATE:

PRACTICE	COMPLETION DATE

**INCENTIVES PROGRAM (TITLE IV)
PROJECT PLAN ILLUSTRATION**

Sketch project area. Include structures and landmarks. Indicate, by location, fuel reduction practices to be implemented. Where appropriate, illustrate distances. Illustrate road access.

T____N

R____W

Please provide any other valuable information:

FUELS REDUCTION INCENTIVES PROGRAM (TITLE IV)

List of Eligible Fuels Reduction Practices

The following is a list of practices eligible for cost-share reimbursement. An approved project plan and application are necessary for participation. Cost-share approved is based on available amounts. Equipment purchased is not reimbursable, but cost-share can cover equipment rental to accomplish the following:

<u>Practice</u>	<u>Maximum Cost-Share Rate</u>
Defensible space <i>Removal of both horizontal and vertical fuel hazard around a home.</i> <i>See Defensible Space Thinning Standards.</i>	\$1,000 per homesite. This includes tree cutting and slash disposal.
Forest Thinning <i>Treatment made to reduce forest density, decreasing heavier fuels, enhancing growth and improving forest health.</i> <i>See Defensible Space Thinning Standards.</i>	\$200/acre
Tree Pruning <i>Removal of branches from a standing tree</i> <i>To remove vertical fuel continuity.</i> <i>See Defensible Space Thinning Standards.</i>	\$75/acre
Interface Broadcast Burn <i>A planned fire within well-defined boundaries to reduce hazardous fuel loading.</i> <i>See standards.</i>	\$200/acre
Slash Disposal <i>The removal of treetops and branches after forest management activities.</i>	
Burning	\$100/acre
Chipping	\$300/acre
Fuel breaks <i>A wide strip of land, usually 132'-198' wide, on which vegetation has been removed or reduced.</i>	\$1,000/acre

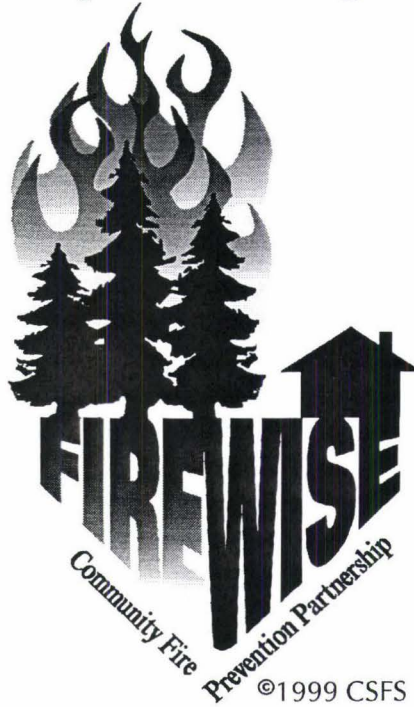
- Rates are not-to-exceed amounts and represent 50% of total cost. The value of wood products generated from these activities must be deducted from total project cost to determine actual cost.
- Use \$10.96/hr labor rate if landowner is accomplishing work.
- For more information contact your local CSFS district office or call 970-491-6303.

Defensible Space Thinning Standards

The measure of fuel hazard refers to its **continuity**, both horizontal (across the ground) and vertical (from the ground up into the vegetation crown) continuity.

Fuels with a high degree of both vertical and horizontal continuity are the most hazardous, particularly when they occur on slopes. Heavier fuels (brush and trees) are more hazardous (i.e. produce a more intense fire) than light fuels such as grass.

Mitigation of wildfire fuel hazards focuses on breaking up the continuity of fuels, both horizontally and vertically. Additional distance between fuels is required on slopes.



vegetation clumps). The diameter of shrub clumps must not exceed 12 feet (measured from the edges of the crowns). Branches must be pruned to a height of 3 feet.

Ladder Fuels: vegetative materials with vertical continuity that allows fire to burn from ground level up into the branches and crowns of trees. Potentially very hazardous, but easy to mitigate. No ladder fuels can be allowed under tree canopies. In all other areas, prune all branches of shrubs (or trees) up to a height of 10 feet above ground (or one-half [$\frac{1}{2}$] the height, whichever is least). The pruned material must be chipped on or removed from the site.

Grasses: Keep dead, dry grass mowed to less than 6 inches.

STANDARDS

for wildland fire fuel mitigation

Tree: a woody perennial, usually having one dominant vertical trunk and a height greater than 15 feet at maturity.

Spacing Requirements: spacing between trees must be a **minimum** of **10 feet** between the edges of the crowns. This does not apply to mature stands of aspen trees where the recommendations for removal of ladder fuels (listed below) have been complied with. However, in areas of aspen regeneration (young trees) the spacing guidelines shall be followed.

Brush and Shrubs: woody plants, smaller than trees, often formed by a number of vertical or semi-upright branches arising close to the ground. Brush is smaller than shrubs and can be either woody or herbaceous vegetation.

Spacing Requirements: Spacing between clumps of brush and/or shrubs must be **2½ times (2½X)** the height of the vegetation. Maximum diameter of clumps shall be **2 times (2X)** the height of the vegetation. All measurements are made from the edges of vegetation crowns.

For example: For shrubs 6 ft.-high-spacing between shrub clumps must be 15 feet or more apart (measured from the edges of the crowns of

Slope Adjustment Factors distance

from structure for fuel modification:

Minimum distance from a structure for brush, shrub, and tree fuel modification is **70 feet on level ground**. Where only grasses exist *and no additional vegetative landscaping* is planned, minimum distance is 30 feet. Otherwise follow the slope adjustment table below.

On slopes *downhill* from the house, defensible space thinning must be completed following the distances in the table below. Uphill and side distance remains 70 feet unless your lot slopes in multiple directions.

1% to 20% slope =

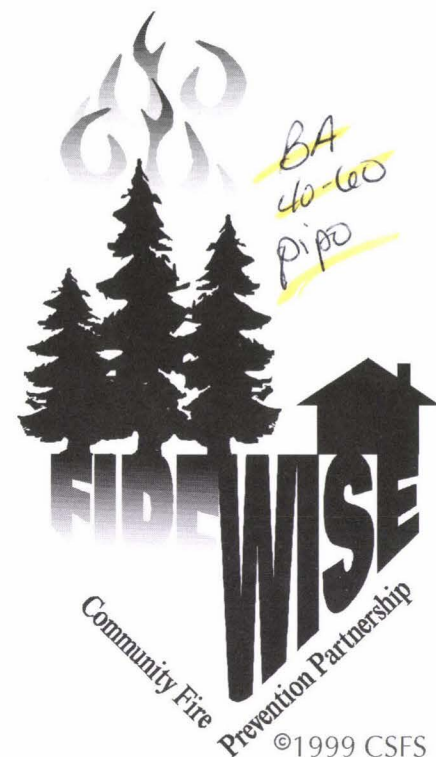
- 100' for brush/shrubs with 3x height separation distance
- 100' for trees with 10-foot crown separation distance
- 30' for grass; keep dead, dry grass mowed to 6 inches

21% to 40% slope =

- 150' for brush/shrubs with 4x height separation distance
- 150' for trees with a 20-foot crown separation distance
- 50' for grass; keep dead, dry grass mowed to 6 inches

>40% slope =

- 200' for brush/shrubs with 6x height separation distance
- 200' for trees with a 30-foot crown separation distance
- 75' for grass; keep dead, dry grass mowed to 6 inches



FIREWISE is a multi-agency program that encourages the development of defensible space and the prevention of catastrophic wildfire.

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This fact sheet was produced in cooperation with the Colorado State Forest Service.

¹Wildfire Hazard Mitigation Coordinator, Colorado State Forest Service.

Tree spacing usually depends on the species being managed and factors such as susceptibility to windthrow or damage from heavy snow loading. For ponderosa pine and Douglas-fir, a good rule of thumb for stem spacing is diameter + 7. For lodgepole pine and Engelmann spruce, the stem spacing guide is diameter + 5. Measure diameter in inches at about 4 1/2 feet above the ground. Substitute feet for inches and add it to the spacing guide number for the proper species. For example, if the average tree to be left following your thinning was an 8-inch ponderosa pine, then use the formula $8 + 7 = 15$, for a spacing of 15 feet between trees as measured between tree stems. See Figure 3.

A greater number of wildlife trees can remain in Zone 3. Make sure that dead trees pose no threat to power lines or fire access roads.

While pruning generally is not necessary in Zone 3, it may be a good idea from the standpoint of personal safety to prune trees along trails and fire access roads. Or, if you prefer the aesthetics of a well-manicured forest, you might prune the entire area. In any case, pruning helps reduce ladder fuels within the tree stand, thus enhancing wildfire safety.

Mowing is not necessary in Zone 3.

Any approved method of slash treatment is acceptable for this zone, including piling and burning, chipping or lop-and-scatter.

Maintaining Your Defensible Space

Your home is located in a forest that is dynamic, always changing. Trees and shrubs continue to grow, plants die or are damaged, new plants begin to grow, and plants drop their leaves and needles. Like other parts of your home, defensible space requires maintenance. Use the following checklist each year to determine if additional work or maintenance is necessary.

Defensible Space and FireWise Annual Checklist

- ☐ Trees and shrubs are properly thinned and pruned within the defensible space. Slash from the thinning is disposed of.
- ☐ Roof and gutters are clear of debris.
- ☐ Branches overhanging the roof and chimney are removed.
- ☐ Chimney screens are in place and in good condition.
- ☐ Grass and weeds are mowed to a low height.
- ☐ An outdoor water supply is available, complete with a hose and nozzle that can reach all parts of the house.
- ☐ Fire extinguishers are checked and in working condition.
- ☐ The driveway is wide enough. The clearance of trees and branches is adequate for fire and emergency equipment. (Check with your local fire department.)
- ☐ Road signs and your name and house number are posted and easily visible.
- ☐ There is an easily accessible tool storage area with rakes, hoes, axes and shovels for use in case of fire.
- ☐ You have practiced family fire drills and your fire evacuation plan.
- ☐ Your escape routes, meeting points and other details are known and understood by all family members.
- ☐ Attic, roof, eaves and foundation vents are screened and in good condition. Stilt foundations and decks are enclosed, screened or walled up.
- ☐ Trash and debris accumulations are removed from the defensible space.
- ☐ A checklist for fire safety needs inside the home also has been completed. This is available from your local fire department.

Issued in furtherance of Cooperative Extension work, Acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture, Milan A. Rewerts, Director of Cooperative Extension, Colorado State University, Fort Collins, Colorado. Cooperative Extension programs are available to all without discrimination. No endorsement of products mentioned is intended nor is criticism implied of products not mentioned.



Quick Facts...

Wildfire will find the weakest links in the defense measures you have taken on your property.

The primary determinants of a home's ability to survive wildfire are its roofing material and the quality of the "defensible space" surrounding it.

Even small steps to protect your home and property will make them more able to withstand fire.

Consider these measures for all areas of your property, not just the immediate vicinity of the house.

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Extension

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www.ext.colostate.edu

FORESTRY

Creating Wildfire-Defensible Zones no. 6.302

by F.C. Dennis ¹

Fire is capricious. It can find the weak link in your home's fire protection scheme and gain the upper hand because of a small, overlooked or seemingly inconsequential factor. While you may not be able to accomplish all measures below, each will increase your home's, and possibly your family's, safety.

Start with the easiest and least expensive actions. Begin your work closest to your house and move outward. Keep working on the more difficult items until you have completed your entire project.

Defensible Space

Two factors have emerged as the primary determinants of a home's ability to survive wildfire. These are the home's roofing material and the quality of the "defensible space" surrounding it.

Use fire-resistant materials (Class C or better rating), not wood or shake shingles, to roof homes in or near forests and grasslands. When your roof needs significant repairs or replacement, do so with a fire-resistant roofing material. Check with your county building department. Some counties now restrict wood roofs or require specific classifications of roofing material.

Defensible space is an area around a structure where fuels and vegetation are treated, cleared or reduced to slow the spread of wildfire towards the structure. It also reduces the chance of a structure fire moving from the building to the surrounding forest. Defensible space provides room for firefighters to do their jobs. Your house is more likely to withstand a wildfire if grasses, brush, trees and other common forest fuels are managed to reduce a fire's intensity.

Creating an effective defensible space involves developing a series of management zones in which different treatment techniques are used. See Figure 1 for a general view of the relationships among these management zones. Develop defensible space around each building on your property. Include detached garages, storage buildings, barns and other structures in your plan.

The actual design and development of your defensible space depends on several factors: size and shape of buildings, materials used in their construction, the slope of the ground on which the structures are built, surrounding topography, and sizes and types of vegetation on your property. These factors all affect your design. You may want to request additional guidance from your local Colorado State Forest Service (CSFS) forester or fire department.

Defensible Space Management Zones

Zone 1 is the area of maximum modification and treatment. It consists of an area of 15 feet around the structure in which all flammable vegetation is removed. This 15 feet is measured from the outside edge of the home's eaves and any attached structures, such as decks.

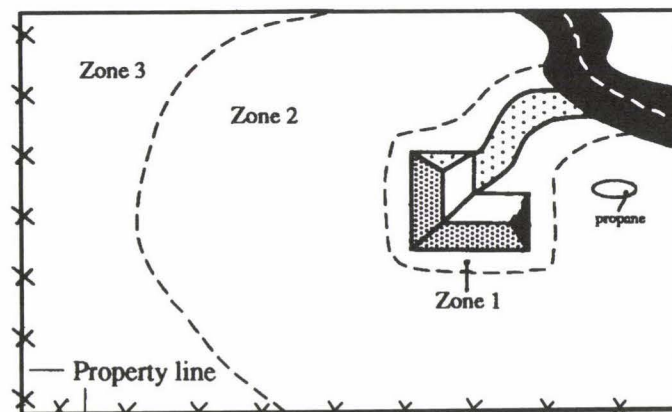


Figure 1: Forested property showing the three fire-defensible zones around a home or other structure.

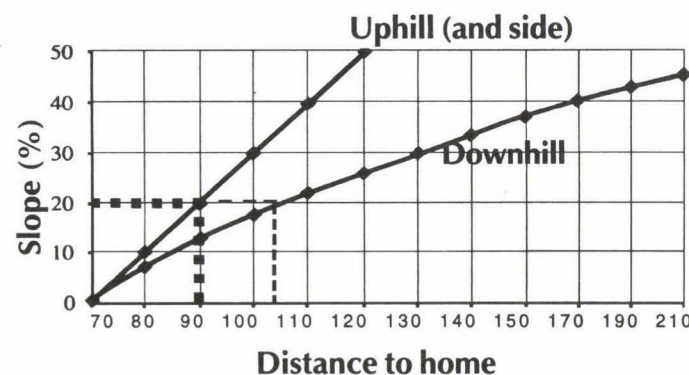


Figure 2: This chart indicates the minimum dimensions for defensible space from the home to the outer edge of Zone 2. For example, if your home is situated on a 20 percent slope, the minimum defensible space dimensions would be 90 feet uphill and to the sides of the home and 104 feet downhill from the home.

Frequently prune and maintain plants in this zone to ensure vigorous growth and a low growth habit. Remove dead branches, stems and leaves.

Do not store firewood or other combustible materials in this area. Enclose or screen decks with metal screening. Extend the gravel coverage under the decks. Do not use areas under decks for storage.

Ideally, remove all trees from Zone 1 to reduce fire hazards. If you do keep a tree, consider it part of the structure and extend the distance of the entire defensible space accordingly. Isolate the tree from any other surrounding trees. Prune it to at least 10 feet above the ground. Remove any branches that interfere with the roof or are within 10 feet of the chimney. Remove all "ladder fuels" from beneath the tree. (Ladder fuels are small shrubs, trees, tree limbs and other materials that allow fire to climb into the tree crown — the branches and foliage.)

Zone 2

Zone 2 is an area of fuel reduction designed to reduce the intensity of any fire approaching your home. Follow these recommended management steps.

Thin trees and large shrubs so there is at least 10 feet between crowns. Crown separation is measured from the furthest branch of one tree to the nearest branch on the next tree (Figure 3). On steep slopes, allow more space between tree crowns. Remove all ladder fuels from under these remaining trees. Carefully prune trees to a height of 10 feet.

Zone 2 is an area of fuel reduction. It is a transitional area between Zones 1 and 3. The size of Zone 2 depends on the slope of the ground where the structure is built. Typically, the defensible space should extend at least 75 to 125 feet from the structure. See Figure 2 for the appropriate distance for your home's defensible space. Within this zone, the continuity and arrangement of vegetation is modified. Remove stressed, diseased, dead or dying trees and shrubs. Thin and prune the remaining larger trees and shrubs. Be sure to extend thinning along either side of your driveway all the way to your main access road. These actions help eliminate the continuous fuel surrounding a structure while enhancing homesite safety and the aesthetics of the property.

Zone 3 is an area of traditional forest management and is of no particular size. It extends from the edge of your defensible space to your property boundaries.

Prescriptions

Zone 1

The size of Zone 1 is 15 feet, measured from the edges of the structure. Within this zone, several specific treatments are recommended.

Plant nothing within 3 to 5 feet of the structure, particularly if the building is sided with wood, logs or other flammable materials. Decorative rock creates an attractive, easily maintained, nonflammable ground cover.

If the house has noncombustible siding, widely spaced foundation plantings of low growing shrubs or other "fire wise" plants are acceptable. Do not plant directly beneath windows or next to foundation vents. Be sure there are no areas of continuous grass adjacent to plantings in this area.

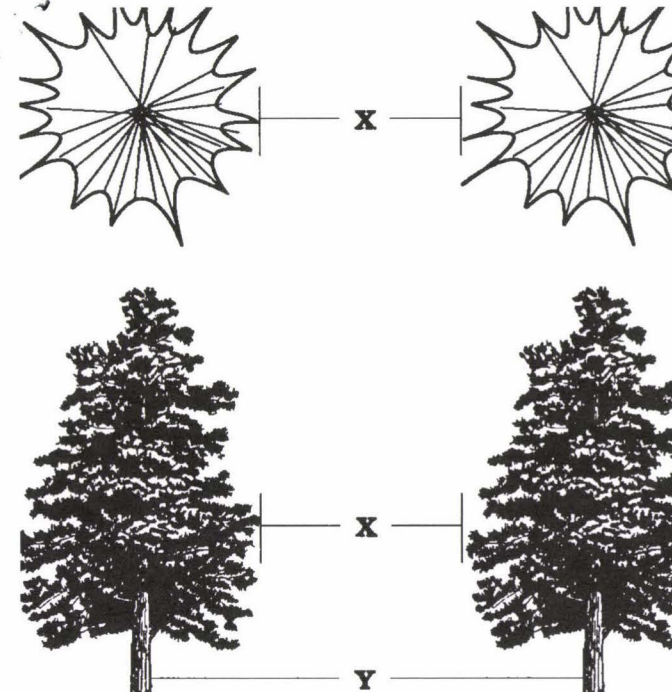


Figure 3: X = crown spacing; Y = stem spacing. Do not measure between stems for crown — measure between the edges of tree crowns.

Because Zone 2 forms an aesthetic buffer and provides a transition between zones, it is necessary to blend the requirements for Zones 1 and 3. Thin the inner portions of Zone 2 more heavily than the outer portions. Gradually increase tree density as you approach Zone 3.

Isolated shrubs may remain, provided they are not under tree crowns. Prune and maintain these plants periodically to maintain vigorous growth. Remove dead stems from trees and shrubs annually.

Limit the number of dead trees (snags) retained in this area. Wildlife need only one or two snags per acre. Be sure any snags left for wildlife cannot fall onto the house or block access roads or driveways.

Mow grasses (or remove them with a weed trimmer) as needed through the growing season to keep them low, a maximum of 6 to 8 inches. This is extremely critical in the fall when grasses dry out and cure or in the spring after the snow is gone but before the plants green up.

Stack firewood and woodpiles uphill or on the same elevation as the structure but at least 30 feet away. Clear and

keep away flammable vegetation within 10 feet of these woodpiles. Do not stack wood against your house or on or under your deck, even in winter. Many homes have burned from a woodpile that ignited as the fire passed. Wildfires can burn at almost any time in Colorado.

Locate propane tanks at least 30 feet from any structures, preferably on the same elevation as the house. You don't want the LP container below your house — if it ignites, the fire would tend to burn uphill. On the other hand, if the tank is above your house and it develops a leak, LP gas will flow downhill into your home. Clear and keep away flammable vegetation within 10 feet of these tanks. Do not screen propane tanks with shrubs or vegetation.

Dispose of slash (limbs, branches and other woody debris) removed from your trees and shrubs through chipping or by piling and burning. Contact your local CSFS office or county sheriff's office for information about burning slash piles. Only if neither of these alternatives is possible, lop and scatter slash by cutting it into very small pieces and distributing it over the ground. Avoid heavy accumulations of slash. Make it lay close to the ground to speed decomposition. If desired, no more than two or three small, widely spaced brush piles may be left for wildlife purposes. Locate these towards the outer portions of your defensible space.

Zone 3

This zone is of no specified size. It extends from the edge of your defensible space to your property lines. In this area, you are encouraged to manage your forests in a more traditional manner. Typical management objectives for areas surrounding homesites or subdivisions are: provide optimum recreational opportunities; enhance aesthetics; maintain tree health and vigor; provide barriers for wind, noise, dust and visual intrusions; support limited production of firewood, fence posts and other forest commodities; or grow Christmas trees or trees for transplanting.

Specific thinning requirements will be dictated by your objectives for your land. However, most thinning will be done from below (leaving the biggest and best trees) and on an individual tree basis.

Thinnings sanitize and improve the forest stand by removing trees that are damaged, attacked by insects, infected by disease, or are of poor form or low vigor.

References

Colorado State Forest Service, Colorado State University, Fort Collins, CO 80523-5060; (970) 491-6303:

- FireWise Construction — Design and Materials
- Home Fire Protection in the Wildland Urban Interface
- Wildfire Protection in the Wildland Urban Interface
- Landowner Guide to Thinning

From Colorado State University Cooperative Extension, 115 General Services Bldg., Fort Collins, CO 80523-4061; (970) 491-6198; Fax (970) 491-2961; E-mail cerc@vines.colostate.edu.

- 6.303, Fire-Resistant Landscaping
- 6.304, Forest Home Fire Safety
- 6.305, FireWise Plant Materials
- 6.306, Grass Seed Mixes to Reduce Wildfire Hazard
- 7.205, Pruning Evergreens
- 7.206, Pruning Shrubs
- 7.207, Pruning Deciduous Trees

Mike Babler

From: Jan Hackett [jhackett@lamar.colostate.edu]
Sent: Friday, August 30, 2002 4:19 PM
To: Vaughn T. Jones; Tom D. Wardle; Tim G. Reader; Terry L. Wattles; Steven L. Hart; Stephanie L. Scott; Seth F. Martin; Scott M. Woods; Russell W. Lewis; Ronald J. Cousineau; Ronald A. Gosnell; Robert L. Irvine; R. Terry Beeson; Peter M. Barth; Peggy J. Hiller; Paul R. Janzen; Patrick L. McLaughlin; Michael M. Hughes; Michael G. Bahm; Michael G. Babler; Michael E. Harvey; Melinda C. Overstreet; Melanie L. Moorman; Mark L. Reichel; Marcia L. Chesnut; Linda S. Jones; L. M. Allen Gallamore; Kristin L. Garrison; Kelly J. Rogers; Kathy R. Porter; Kathryn Y. Hardgrave; Karyl K. Scarlett; Judith M. Simmons; John W. Grieve; John W. Denison; John Twitchell; Joel R. Stewart; Jennifer C. Chase; Jeffrey D. Burns; Janis R. Meeseey; James M. Fischer; Holly M. Asmus; F. Chuck Dennis; Elizabeth L. Anderson; Donna H. Davis; Dennis L. Will; Denise L. Dulac; David H. Root; David Allen Owen; David A. Farmer; Daniel F. Wand; Daniel E. Ochocki; Damon M. Lange; D. Kent Grant; Craig D. Jones; Clarence K. Morey; Charles A. Kostecka; Cathy Jauregui; Brian D. Kurtz; Brian C. Ayers; Brenda W. Orth; Boyd O. Lebeda; Andrew J. Schlosberg; Alice M. Giro; A. Vince Urbina
Cc: Richard L. Homann; Kathleen Frasier
Subject: FW: 2003 Western State WUI Competitive Grants

Districts and Special Projects,

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Thanks, have a good weekend!
 Jan

-----Original Message-----

From: Rich Homann [mailto:rhomann@lamar.colostate.edu]
Sent: Friday, August 30, 2002 3:20 PM
To: A. Vince Urbina; Alice M. Giro; Andrew J. Schlosberg; Ann L. Randall; Barbara K. Berg; Becky S. Kitchens; Bernard A. Post; Boyd O. Lebeda; Brenda W. Orth; Brian C. Ayers; Brian D. Kurtz; Cathy Jauregui; Charles A. Kostecka; Charles P. Rossi; Chris Jennings; Christopher Woolley; Clarence K. Morey; Craig D. Jones; Cynthia L. Meyers; D. Kent Grant; Damon M. Lange; Daniel E. Ochocki; Daniel F. Wand; Daniel R. Galecki; Dave J. Latelle; David A. Farmer; David A. Leatherman; David Allen Owen; David H. Root; David L. Hessel; Denise L. Dulac; Dennis L. Will; Denton M. Kurtz II; Donna H. Davis; Eldon J. Rizzi; Elizabeth L. Anderson; F. Chuck Dennis; Greg S. Estoll; Gregory D. Sundstrom; Gregory J. Anderson; Harry H. (Skip) Edel III; Holly M. Asmus; James E. Hubbard; James M. Fischer; Jan J. Hackett; Janell K. H. Ray; Janis R. Meeseey; Jay P. Davis; Jeffrey D. Burns; Jennifer C. Chase; Joel R. Stewart; John Twitchell; John W. Denison; John W. Grieve; Joseph A. Duda; Judith M. Simmons; Judy E. Serby; Karyl K. Scarlett; Katherine M. Timm; Kathleen Frasier; Kathryn Y. Hardgrave; Kathy R. Porter; Kelly J. Rogers; Kristin L. Garrison; Kristy L. Boscheinen; L. M. Allen Gallamore; Linda S. Jones; Lindsay M. Towne; Mandy Z. Wiedeman; Marcia L. Chesnut; Mark L. Reichel; Melanie L. Moorman; Melinda C. Overstreet; Michael E. Harvey; Michael E. Schomaker; Michael G. Babler; Michael G. Bahm; Michael M. Hughes; Mikel F. Way; Paige Lewis; Patricia S. Pawley; Patrick L. McLaughlin; Paul R. Janzen; Paulicia A. Larsen; Peggy J. Hiller; Peter M. Barth; Philip J. Murphy; Phillip H. Schwolert; R. Terry Beeson; Ralph E. Campbell; Randy D. Moench; Richard L. Homann; Robert G. Sturtevant; Robert J. Rehor; Robert L. Irvine; Ronald A. Gosnell; Ronald J. Cousineau; Russell W. Lewis; Samuel B. Parsons; Scott M.

Woods; Shawna L. Crocker; Shelly L. VanLandingham; Stephanie L. Scott; Steven L. Hart; Tara A. Mickelburgh; Terry L. Wattles; Tim G. Reader; Tom D. Wardle; Valerie A. Heady; Vaughn T. Jones; William E. Graepler

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The past two years have yeilded may success stories (along with some frustrations). I encourage you to build upon the successes and submit applications that support programs that you've developed.

I look forward to having my mailbox fill up with applications.

Rich

Rich Homann
Fire Division
Colorado State Forest Service
970-491-6303
rhomann@lamar.colostate.edu

Mike Babler

From: Jan Hackett [jhackett@lamar.colostate.edu]
Sent: Tuesday, September 03, 2002 2:17 PM
To: Michael G. Babler
Subject: FW: 2003 Western State WUI Competitive Grants

-----Original Message-----

From: Rich Homann [mailto:rhomann@lamar.colostate.edu]
Sent: Tuesday, September 03, 2002 1:46 PM
To: Jan Hackett
Subject: RE: 2003 Western State WUI Competitive Grants

I would prefer electronic but I will accept typed.

-----Original Message-----

From: Jan Hackett [mailto:jhackett@lamar.colostate.edu]
Sent: Tuesday, September 03, 2002 12:37 PM
To: Richard L. Homann
Subject: FW: 2003 Western State WUI Competitive Grants

Rich,

Are you accepting typed applications?

Jan

-----Original Message-----

From: Mike Babler [mailto:mbabler@lamar.colostate.edu]
Sent: Tuesday, September 03, 2002 8:59 AM
To: Jan Hackett
Subject: RE: 2003 Western State WUI Competitive Grants

Can we submit typed applications or do they have to be electronic?

-----Original Message-----

From: Jan Hackett [mailto:jhackett@lamar.colostate.edu]
Sent: Friday, August 30, 2002 4:19 PM
To: Vaughn T. Jones; Tom D. Wardle; Tim G. Reader; Terry L. Wattles; Steven L. Hart; Stephanie L. Scott; Seth F. Martin; Scott M. Woods; Russell W. Lewis; Ronald J. Cousineau; Ronald A. Gosnell; Robert L. Irvine; R. Terry Beeson; Peter M. Barth; Peggy J. Hiller; Paul R. Janzen; Patrick L. McLaughlin; Michael M. Hughes; Michael G. Bahm; Michael G. Babler; Michael E. Harvey; Melinda C. Overstreet; Melanie L. Moorman; Mark L. Reichel; Marcia L. Chesnut; Linda S. Jones; L. M. Allen Gallamore; Kristin L. Garrison; Kelly J. Rogers; Kathy R. Porter; Kathryn Y. Hardgrave; Karyl K. Scarlett; Judith M. Simmons; John W. Grieve; John W. Denison; John Twitchell; Joel R. Stewart; Jennifer C. Chase; Jeffrey D. Burns; Janis R. Meeseey; James M. Fischer; Holly M. Asmus; F. Chuck Dennis; Elizabeth L. Anderson; Donna H. Davis; Dennis L. Will; Denise L. Dulac; David H. Root; David Allen Owen; David A. Farmer; Daniel F. Wand; Daniel E. Ochocki; Damon M. Lange; D. Kent Grant; Craig D. Jones; Clarence K. Morey; Charles A. KostECKa; Cathy Jauregui; Brian D. Kurtz; Brian C. Ayers; Brenda W. Orth; Boyd O. Lebeda; Andrew J. Schlosberg; Alice M. Giro; A. Vince Urbina
Cc: Richard L. Homann; Kathleen Frasier
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