

2003 WUI Grant

Project Acct & ID #	Dist ID	Amount Funded	Individual Projects	County	Amount Approved	Payment	Coop Match	Date Processed	Payment	Total Project		DS
Fort Collins		\$15,000				0				Cost	Acres	
	1		Paul F. Larsen	Larimer	3600.00	1,447.12	1,447.11	8/23/04		2894.23	3	1
	2		Rocky Ridge Music Center	Larimer	3600.00	3,600.00	3,748.95	9/2/04		7348.95	2	1
	3		John Kochner	Larimer	2400.00	1,499.38	1,499.38	10/7/04		2998.76	3	
	4		Aspen Lodge	Larimer	3600.00	2,935.00	2,935.00	11/29/04		5,870.00	10	3

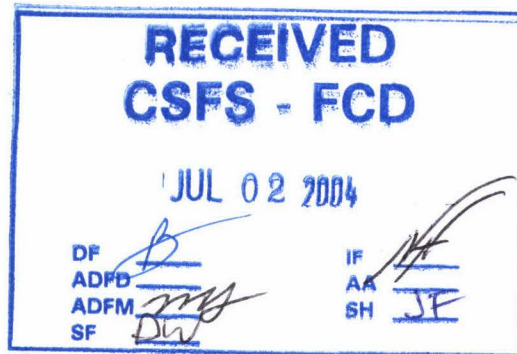
13,200 9481.5

15000
- 9481.5
5518.5

THIN	Fuel Break	Slash	Prun	Rx Burn
3		3	3	
2		2	2	
3		3		
10		10		

July 1, 2004

Recipient



Dear :

Late last summer you applied for a Western State Fire Managers Competitive Grant to mitigate wildfire risk through assessment, planning, education, fuel hazard reduction, and/or monitoring. I thank you for your patience in waiting for the results of the grant process.

The process has changed from last year. Shortly, you will be receiving a sub-award agreement packet from the Colorado State University Office of Sponsored Programs. I encourage you to become familiar with its terms, if acceptable, sign it and return it to the Office of Sponsored Programs.

The Office of Sponsored Programs will be managing the agreement and payment process of this grant program. Technical advice on implementation of your project will be available through the Colorado State Forest Service District Office that serves your area. Certification of your project work will be required by the CSFS District Office before the Office of Sponsored Programs will issue you reimbursement.

The Colorado State Forest Service received 197 applications totaling \$6.8 million. Through a competitive selection process 90 applications will share in the \$2.9 million available. No application received the entire amount requested.

Thank you for your interest in mitigating wildfire hazards in your community.

Sincerely,

Richard L. Homann
Fire Division Supervisor

cc: Office of Sponsored Programs

June 30, 2004

Applicant

Dear :

Late last summer you applied for a Western State Fire Managers Competitive Grant to mitigate wildfire risk through assessment, planning, education, fuel hazard reduction, and/or monitoring. I thank you for your patience in waiting for the results of the grant process.

The Colorado State Forest Service received 197 applications totaling \$6.8 million. Through a competitive selection process 90 applications will share in the \$2.9 million available.

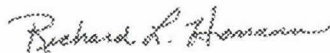
Your application has not been funded.

I encourage you to continue to pursue mitigating wildfire risks in your community. Future applications may have a better chance for limited grant funds if they clearly express how a project will reduce wildfire risk; mitigate risk to communities in addition to individual homes; occur in an area that has a County Wildfire Plan and/or a Community Wildfire Protection Plan; have a definite plan of work with measurable points of accomplishment; have multiple sources of support; and are cooperative, community based efforts.

Many projects were not funded this year purely because there was not enough grant funding available.

Thank you for your interest in mitigating wildfire hazards in your community.

Sincerely,



Richard L. Homann
Fire Division Supervisor

cc: Office of Sponsored Programs

CSFS Account	Project #	Account Name	Unit	Unit Priority	Application Name	Amount Requested	Amount Funded
536730	001	04 Fuels Treatment A	BO	14	City of Longmont	\$21,000	\$18,900
536730	002	04 Fuels Treatment A	BO	18	City of Boulder	\$25,000	\$22,500
536730	003	04 Fuels Treatment A	DU	5	Hartwood Ranch HOA	\$8,898	\$8,008
536730	004	04 Fuels Treatment A	FC	7	John Snyder	\$20,000	\$18,000
536730	005	04 Fuels Treatment A	GO	2	Denver Mountain Parks	\$25,000	\$22,500
536730	006	04 Fuels Treatment A	GR	3	Wildacres Sub	\$19,000	\$17,100
536730	007	04 Fuels Treatment A	GR	8	Eagle County	\$10,000	\$9,000
536730	008	04 Fuels Treatment A	GR	15	Pebble Creek Ranch	\$8,500	\$7,650
536730	009	04 Fuels Treatment A	SS	2	Moffat County	\$30,000	\$27,000
536730	010	04 Fuels Treatment A	WP	4	El Paso County Parks	\$15,000	\$13,500
536730	011	04 Fuels Treatment A	WP	8	Colorado Springs FD	\$6,000	\$5,400
536730	012	04 Fuels Treatment A	WP	14	Pikes Peak BSA	\$32,382	\$29,099
536732	001	04 Front Range Fuels Treatment	BR	1	FRFTP	\$650,000	\$185,000
536733	001	04 Information A	SO-6	high	Publications	\$32,500	\$28,925
536733	002	04 Information A	SO-8	high	FireWise	\$60,000	\$53,400
536733	003	04 Information A	SO-10	high	CSFS Vols	\$15,000	\$13,350
536733	004	04 Information A	SO-11		Forestry Extension	\$5,000	\$4,450
536733	005	04 Information A	SO-16	high	fire Ecology Institute	\$35,075	\$31,217
536733	006	04 Information A	SO-17	high	Events and Displays	\$50,000	\$44,500
536733	007	04 Information A	SO-19		grant database	\$38,295	\$34,083
536734	001	04 District Incentives A	BO	1	Boulder Dist	\$50,000	\$45,000
536734	002	04 District Incentives A	CC	1	Canyon City Dist	\$75,000	\$45,000
536734	003	04 District Incentives A	DU	43	District Cost Share	\$200,000	\$45,000
536734	004	04 District Incentives A	GJ	1	Grand Junction Dist	\$100,000	\$45,000
536734	005	04 District Incentives A	GJ	2	Glenwood Springs FD	\$25,000	\$22,500
536734	006	04 District Incentives A	GO	1	Golden District	\$150,000	\$45,000
536734	007	04 District Incentives A	SS	1	SS District	\$50,000	\$45,000
536735	001	04 Planning Assessment A	GO	3	Jeff. County Open Space	\$13,820	\$12,438
536735	002	04 Planning Assessment A	GO	14	Platte Canyon FPD	\$15,900	\$14,310
536735	003	04 Planning Assessment A	GO	16	Golden Jefferson Open	\$3,640	\$3,276
536735	004	04 Planning Assessment A	GR	5	Cordillena POA	\$25,000	\$22,500
536735	005	04 Planning Assessment A	GU	2	Hinsdale	\$3,635	\$3,272
536735	006	04 Planning Assessment A	LV	3	Fischers Peak	\$38,500	\$34,650
536737	001	04 Information B	AL	2	Forbes Park HOA	\$5,000	\$4,500
536737	002	04 Information B	CC	4	City of Canon City	\$30,000	\$9,900
536737	003	04 Information B	DU	2	fireWise - SW Colorado	\$4,500	\$4,050
536737	004	04 Information B	DU	4	San Juan Mt. Assn	\$5,000	\$4,500
536737	005	04 Information B	FC	1	Larimer County Wildfire Sal	\$85,000	\$18,000
536737	006	04 Information B	FR	2	Perry Park Ranch	\$100,000	\$9,000
536737	007	04 Information B	FR	3	Sage Port	\$50,000	\$9,000
536737	008	04 Information B	FR	4	Perry Park East	\$45,000	\$9,000
536737	009	04 Information B	GJ	5	Carbondale Rural	\$15,000	\$13,500
536737	010	04 Information B	GO	13	clear creek	\$1,000	\$900
536737	011	04 Information B	GR	7	Grand Lake FPD	\$30,000	\$27,000
536737	012	04 Information B	GR	14	Columbine Lake HOA	\$4,250	\$3,825
536737	013	04 Information B	LV	1	Bar N I	\$51,000	\$9,000
536737	014	04 Information B	MO	4	Ouray HOA	\$5,000	\$4,500
536737	015	04 Information B	SO-12	medium	PLT Fire	\$19,550	\$17,400
536737	016	04 Information B	SO-14	medium	LWF inserts	\$25,000	\$22,250
536737	017	04 Information B	SO-18		american red cross	\$44,160	\$39,744
536737	018	04 Information B	SO-5		American Forest Foundatio	\$16,899	\$15,209
536737	019	04 Information B	SO-9	medium	State Fair	\$18,000	\$16,020
536737	020	04 Information B	WP	3	Crystal Park	\$28,215	\$18,000

536737	021	04 Information B	WP	13	Colorado Mitigation Conf	\$10,000	\$9,000
536738	001	04 Fuels Treatment B	AL	1	kundalini Fire Mgmt	\$35,000	\$31,500
536738	002	04 Fuels Treatment B	BO	10	DAC BSA	\$10,200	\$9,180
536738	003	04 Fuels Treatment B	CC	5	City of Pueblo	\$50,000	\$45,000
536738	004	04 Fuels Treatment B	DU	3	Edgemont Ranch	\$7,500	\$6,750
536738	005	04 Fuels Treatment B	DU	6	Pagosa Lakes POA	\$25,000	\$22,500
536738	006	04 Fuels Treatment B	FC	3	Ben Delatour Scout	\$38,000	\$34,200
536738	007	04 Fuels Treatment B	FC	4	YMCA	\$20,000	\$18,000
536738	008	04 Fuels Treatment B	FC	5	Wildcliff Prop Owners	\$10,000	\$9,000
536738	009	04 Fuels Treatment B	FC	2	Poudre Canyon FPD	\$50,000	\$45,000
536738	010	04 Fuels Treatment B	GU	3	Arrowhead Improvement	\$20,000	\$18,000
536738	011	04 Fuels Treatment B	LJ	2	West Otero	\$40,000	\$36,000
536738	012	04 Fuels Treatment B	SA	1	Trail West Association	\$12,000	\$10,800
536738	013	04 Fuels Treatment B	SA	2	Game Trail HOA	\$15,000	\$13,500
536738	014	04 Fuels Treatment B	WP	1	SamCom	\$27,000	\$18,000
536739	001	04 District Incentives B	BO	2	Sugar Loaf FPD	\$30,000	\$27,000
536739	002	04 District Incentives B	GJ	3	Hotchkiss	\$47,500	\$42,750
536739	003	04 District Incentives B	GR	2	Stillwater Abate Coal	\$100,000	\$18,000
536739	004	04 District Incentives B	GU	1	Gunnison Dist	\$46,000	\$45,000
536739	005	04 District Incentives B	MO	2	Montrose District	\$80,000	\$45,000
536739	006	04 District Incentives B	SA	8	Salida Dist	\$50,000	\$45,000
536739	007	04 District Incentives B	WP	5	Woodland Park Dist	\$50,000	\$45,000
536739	008	04 District Incentives B	WP	2	Woodmoor D-Space	\$50,000	\$45,000
536736	001	04 Planning Assessment B	BO	22	Boulder SCA	\$20,000	\$18,000
536736	002	04 Planning Assessment B	BR	6	elk creek fpd	\$80,000	\$72,000
536736	003	04 Planning Assessment B	GO	15	Jefferson County Emergen	\$50,000	\$45,000
536736	004	04 Planning Assessment B	WP	11	City of CSFD	\$9,600	\$8,640
536731	001	04 Fuels Treatment C	BO	4	Boulder Mt. Fire Authority	\$60,000	\$36,000
536731	002	04 Fuels Treatment C	BO	5	Dory Lakes	\$51,300	\$36,000
536731	003	04 Fuels Treatment C	BO	6	Retallack	\$50,000	\$36,000
536731	004	04 Fuels Treatment C	BO	12	Rollinsville	\$52,000	\$36,000
536731	005	04 Fuels Treatment C	BR	2	Foxton	\$110,400	\$99,360
536731	006	04 Fuels Treatment C	FR	1	West Douglas FPD	\$12,000	\$10,800
536731	007	04 Fuels Treatment C	GO	6	clear creek	\$22,500	\$20,250
536731	008	04 Fuels Treatment C	GR	1	Eagle County	\$20,000	\$18,000
536731	009	04 Fuels Treatment C	GR	4	YMCA of Rockies	\$35,000	\$31,500
536731	010	04 Fuels Treatment C	WP	9	Jefferson Como	\$28,407	\$25,566

Fort Collins District
Foothills Campus, Building 1052
Fort Collins, Colorado 80523
(970) 491-8445
FAX (970) 491-8645



MEMORANDUM

Date: October 1, 2003
TO: FLEP & WUI/D-space grant files
FROM: Dave Farmer *DAF*
Subject: Statistics

FLEP Grant

# Applications Received:	28
Total \$ Amount Requested:	\$121,315
Average Request \$ Amount:	\$4,333
Largest \$ Amount Requested:	\$17,600
Smallest \$ Amount Requested:	\$650
# Applications Approved:	20
Total \$ Amount Approved*:	\$34,000
Average Approval \$ Amount:	\$1,700
Total Acres Treated (Planned):	40.5 acres
Estimated Cost/Acre Treated:	\$1679/acre

* Only 1 project received the total amount requested (\$800 project).

WUI Grant

# Applications Received:	10
Total \$ Amount Requested:	\$77,493
Average Request \$ Amount:	\$7,749
Largest \$ Amount Requested:	\$25,350
Smallest \$ Amount Requested:	\$2,400
# Applications Approved:	5
Total \$ Amount Approved*:	\$15,000
Average Approval \$ Amount:	\$3,000
Total Acres Treated (Planned):	16.75 acres
Estimated Cost/Acre Treated:	\$1,791/acre

* No project received total amount requested.

Main Identity

From: "Mike Babler" <mbabler@lamar.colostate.edu>
To: "Dave Farmer" <dfarmer@lamar.colostate.edu>; "Mike Hughes" <mhughes@lamar.colostate.edu>;
"Mike Babler" <mbabler@lamar.colostate.edu>; "Kathy Porter" <kporter@lamar.colostate.edu>;
"Denton Kurtz" <dkurtz@lamar.colostate.edu>; "Denise White" <denise@lamar.colostate.edu>
Sent: Tuesday, July 01, 2003 9:03 AM
Subject: FW: WUI Incentives funds

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

From: Jan Hackett [mailto:jhackett@lamar.colostate.edu]
Sent: Monday, June 30, 2003 2:41 PM
To: Michael G. Babler; Boyd O. Lebeda; Donna H. Davis; Wand, Dan; Daniel E. Ochocki; Van Landingham, Shelly;
David A. Farmer
Cc: Richard L. Homann; Tom Ostermann; Duda, Joe
Subject: WUI Incentives funds

Hi Folks,

WUI Incentive funds from the SO grant have been allocated as follows:

Fort Collins District	\$15,000
Alamosa District	\$15,000
Durango	\$15,000
La Junta	\$ 5,000

Please use # 03-7130-005 on your forms to identify the grant.

Let me know if you have any questions,
Jan

Jan Hackett
Forest Management Division
Colorado State Forest Service
970-491-6303
jhackett@lamar.colostate.edu

Main Identity

From: "Jan Hackett" <jhackett@lamar.colostate.edu>
To: "Jennifer C. Chase" <jchase@lamar.colostate.edu>; "Scott M. Woods"
Sent: Monday, June 16, 2003 4:10 PM
Attach: 2003-program procedures.doc; 2003 Cost-Share Application.doc; 2003 Project Plan 2.doc; 2003 List of Approved Practices.doc; 2003 Accomplishment Form-rev.doc; WUI Cost Documentation1.doc; W9.pdf; FWS additional guidelines 03.wpd
Subject: WUI Incentives forms

As per your request, I am mailing out the application packets for the 2003 WUI Incentives D-space program (I'm sure it was the color coding). For simplicity, I am also sending the forms as attachments. They include: 1. List of procedures, 2. Application for Cost-share (blue), 3. Management Plan (yellow), 4. List of eligible practices with cost-share amounts (green). I am also attaching the Accomplishment Report (pink) and a Cost Documentation form that should itemize landowner's expenses. PLEASE do not give/send electronic copies of the application or accomplishment forms to landowners/cooperators. Make sure landowners/cooperators contact you for approval and authorization. You may want to add your own cover letter to personalize your District's program. I will be mailing hard copies of the Accomplishment Report as well. These forms will soon be available on the CSFS intranet.

Districts will be managing their own grants. You will manage/authorize everything up to and including their Accomplishment Report. When sending that in for payment (to S.O.), please include a copy of the application (for tracking). Payments are made from CSU directly to the landowner.

Colorado's cost-share amounts are usually higher than most other states. Projects that won't require the maximum amount do not need to be approved for the maximum cost-share. Make sure that landowners/cooperators itemize all of their expenses (and revenues) - dates, activity. For CSFS reporting purposes, please separate CSFS services (for fee) on the Accomplishment Report. Also, W9 forms need to be included with the Accomplishment Report for landowners to fill out and return. I have attached an electronic version of the form below.

Finally, I have included a copy of the USFWS Additional Guidelines (they sent in Word Perfect). Due to the volume of paper and information these are not being included in the landowner packets. There is reference made to T & E species in the procedures, and the guidelines can be obtained from the website listed. It is our responsibility to be familiar with the additional guidelines. I don't think we will encounter problems when addressing these guidelines (please let me know if otherwise), and I would like to receive feedback from you on using them. We don't want to sacrifice the effectiveness of fuels mitigation work, or create more work. However, we (landowners) do need to follow the law, and when following these guidelines, landowners are in compliance with ESA.

Please let me know if you have any questions or if I can help you in any way.

Thanks,
 Jan

June 25, 2003

Dear Forest Landowner:

Colorado State Forest Service has received a grant for creating defensible space on forest property in the Wildland-Urban Interface. These cost-share grants are available to any private individual and group. These D-Space grants are a separate program from the Forest Land Enhancement (FLEP) grants you may have received a few weeks ago.

Enclosed are instructions, listing of approved practices and maximum reimbursement amounts, and an application. More detailed information is available if needed.

There are limited funds available and not all applicants will be successful. Please have your D-Space grant application submitted no later than **September 1, 2003**. Applications will be evaluated as received and notifications will be made soon after.

If you are interested in applying for a 2003 D-Space grant, please complete the attached application and return to:

Colorado State Forest Service
Fort Collins District
5075 Campus Delivery, CSU
Fort Collins, CO 80523-5075

If you have already thinned your property, you may wish to share this information with neighboring property owners. If you need additional information or grant packages, please contact us at 491-8660.

Sincerely,

A handwritten signature in cursive script that reads "Mike Babler" followed by a small flourish.

Mike Babler
District Forester

Enclosure: D-Space Grant Package

**Wildland Urban Interface Incentives
D-Space Program – 2003
Procedures**

Please read all of the forms and information supplied. The Colorado State Forest Service (CSFS) can assist in filling out the forms correctly. The minimum guidelines (CSFS publication 6.302) must be met to receive funding. Cost-share amounts represent the maximum allowable that can be paid for that practice.

Also included in this packet are:

- Application for Cost-share
- Management Plan
- List of eligible practices with cost-share amounts
- Colorado State Forest Service guidelines 6.302

- Step 1. Landowner (LO) Plan and Application:** Landowner fills out the Application For Cost-Share. Assistance in filling out this documentation can be received from the CSFS. 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. Threatened and Endangered Species are addressed in this process. For information on Threatened and Endangered species in Colorado visit this US Fish and Wildlife Service website: www.mountain-prairie.fws.gov/es/fire
- Step 2. CSFS Field Review.** Contact your local CSFS District for project approval (field review) and signature. If the review determines your application meets plan objectives and program intent, and funding is available, 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. Approved applications:** Upon project approval, the District will let you know to proceed, and provides you with an Accomplishment Report, a Cost Documentation Form and a W9 form. The Accomplishment Report serves as a request for payment, and documents completed activities and expenditures. Do not begin your project prior to approval. You should be able to obtain a list of available contractors from the CSFS District Office.
- Step 4. Landowner implementation.** Complete your project according to your plan and CSFS guidelines.
- Step 5. Accomplishment Report and certification.** Upon completion of practices, notify your local CSFS District. Complete the Accomplishment Report (with District assistance if needed) and submit to your District Office as a request for reimbursement (invoice). Document all completed activities. Report all costs and revenues (Cost Documentation form), and submit receipts with the Accomplishment Report. Also complete the W9 form for tax purposes and to be assured payment. Please make sure everything can be easily read and keep copies for your files. CSFS certifies practice(s) completed according to approved application and CSFS standards.
- Step 6. Payment Approval.** When project is certified, and CSFS District approves the Accomplishment Report, it is submitted with supporting documentation to the State Office.
- Step 7. Payment issued.** Cost-share payment is issued from the State Office directly 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
APPLICATION FOR COST-SHARE
2003**

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	Rate	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 guidelines (6.302). There are no partial payments.

LANDOWNER SIGNATURE: _____ **DATE:** _____

CSFS REVIEW AND APPROVAL: _____ **DATE:** _____

C/S AMOUNT APPROVED: \$ _____

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



**WILDLAND URBAN INTERFACE INCENTIVES
D-SPACE PROGRAM - 2003
MANAGEMENT PLAN**

Landowner

Mailing Address

City, State, Zip Code

Project Physical Address:

Project Legal Description:

Section

Township

Range

Telephone

Plan acres

Prepared by:

Resource Professional

Date

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. I agree to implement this practice as designed and planned.

Landowner Signature

Date

CSFS Approval

Date



WILDLAND URBAN INTERFACE INCENTIVES D-SPACE PROGRAM PLAN

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:

Wetlands present:

Wildlife (or sign) present:

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

Noxious weeds present:

Cultural or historic resources on the property:

Recreational use on the property:

**WILDLAND URBAN INTERFACE INCENTIVES D-SPACE PROGRAM
PLAN DESIGN**

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

LIST PRACTICE WITH PROJECTED COMPLETION DATE:

PRACTICE/OTHER SPECIFICATIONS	COMPLETION DATE

WILDLAND URBAN INTERFACE INCENTIVES D-SPACE PROGRAM

Eligible Fuels Reduction Practices

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 publication No. 6.302, Creating Wildfire Defensible Zones, for standards and guidelines.** An approved plan and application are necessary for participation. Cost-share approved is based on available funding. **Tools and Equipment purchased are not reimbursable.**

<u>Practice</u>	<u>Maximum Cost-Share</u>
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

- 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 \$11.68 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.

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 (and there are no guarantees), each will increase your home’s, and possibly your family’s, safety and survival during a wildfire.

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-resistive 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.

The measure of fuel hazard refers to its continuity, both horizontal (across the ground) and vertical (from the ground up into the vegetation crown). 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 hazards focuses on breaking up the continuity of horizontal and vertical fuels. Additional distance between fuels is required on slopes.

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



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.

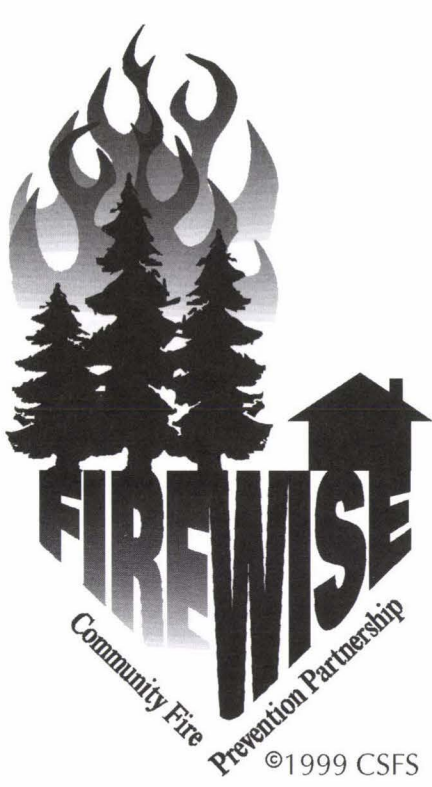
Even small steps to protect your home and property will make them more able to withstand fire.

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

- ☐ 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.

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; E-mail: cerc1@ur.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*



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



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

¹Wildfire Hazard Mitigation Coordinator, Colorado State Forest Service.

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.

On nearly level ground, minimum spacing recommendations between clumps of brush and/or shrubs is 2 1/2 times the height of the vegetation. Maximum diameter of clumps should be 2 times the height of the vegetation. As with tree crown spacing, all measurements are made from the edges of vegetation crowns (Figure 3).

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

Grasses

Keep dead, dry or curing grasses mowed to less than 6 inches. Defensible space size where grass is the predominant fuel can be reduced (Figure 5) when applying this practice.

Windthrow

In Colorado, certain locations and tree species, including lodgepole pine and Engelmann spruce, are especially susceptible to damage and uprooting by high winds (windthrow). If you see evidence of this problem in or near your forest, or have these tree species, consider the following adjustments to the defensible space guidelines. It is highly recommended that you contact a professional forester to help design your defensible space.

Adjustments: If your trees or homesite are susceptible to windthrow and the trees have never been thinned, use a stem spacing of diameter plus five instead of the guides listed in the Zone 3 section. Over time (every 3 to 5 years) *gradually* remove additional trees. The time between cutting cycles allows trees to “firm up” by expanding their root systems. Continue this periodic thinning until the desired spacing is reached.

Also consider leaving small clumps of trees and creating small openings on their lee side (opposite of the predominant wind direction). Again, a professional forester can help you design the best situation for your specific homesite and tree species. Remember, with species such as lodgepole pine and Engelmann spruce, the likelihood of a wildfire running through the tree tops or crowns (crowning) is closely related to the overabundance of fuels on the forest floor. Be sure to remove downed logs, branches and *excess* brush and needle buildup.

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.

% slope	D-space size (uphill, downhill, sidehill)
0 - 20 %	30’
21 - 40%	50’
> 40%	70’

Figure 6: Minimum defensible space size for grass fuels.



© Colorado State University Cooperative Extension. 5/2003. www.ext.colostate.edu

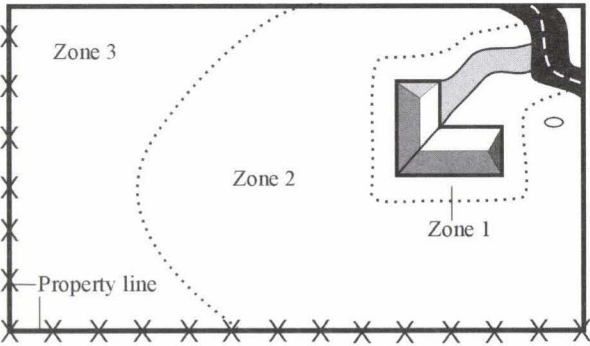


Figure 1: Forested property showing the three fire-defensible zones around a home or other structure.

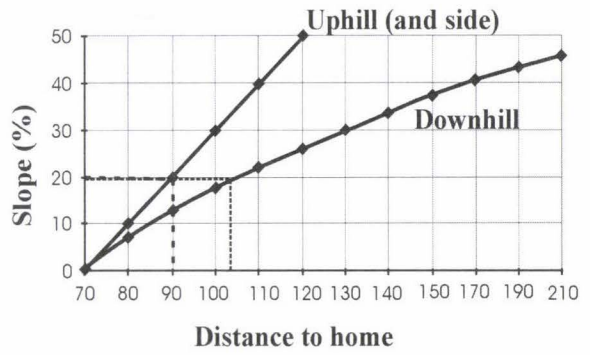


Figure 2: This chart indicates the *minimum recommended* dimensions for defensible space from the home to the outer edge of Zone 2. For example, if your home is situated on a 20 percent slope, the minimum defensible space dimensions would be 90 feet uphill and to the sides of the home and 104 feet downhill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

design. You may want to request additional guidance from your local Colorado State Forest Service (CSFS) forester or fire department. (See the Special Recommendations section of this fact sheet for shrubs, lodgepole pine, Engelmann spruce, and aspen.)

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.

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, for example, 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.

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 vegetation with vertical continuity that allows fire to burn from ground level up into the branches and crowns of trees. Ladder fuels are potentially very hazardous but are 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 1/2 the height, whichever is the least).

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. (See Figure 4 for *minimum recommended* spacing for trees on steep slopes.) Remove all ladder fuels from under these remaining trees. Carefully prune trees to a height of at least 10 feet.

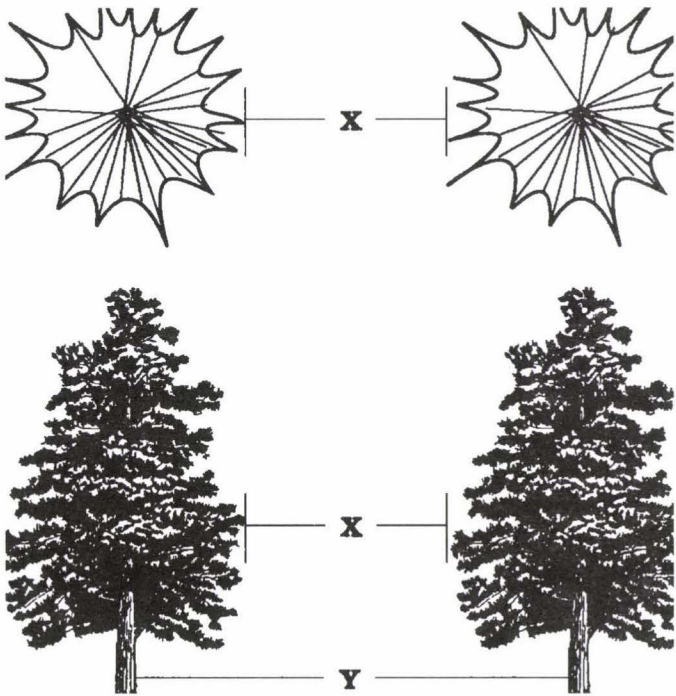


Figure 3: X = crown spacing; Y = stem spacing. Do not measure between stems for crown — measure between the edges of tree crowns.

Small clumps of 2 to 3 trees may be occasionally left in Zone 2. Leave more space between the crowns of these clumps and surrounding trees.

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 portions of Zone 3 adjacent to Zone 2 more heavily than the outer portions.

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. Where shrubs are the primary fuel in Zone 2, refer to the Special Recommendations section of this fact sheet.

Limit the number of dead trees (snags) retained in this area. Wildlife needs 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.

% slope	Tree Crown Spacing	Brush and Shrub Clump Spacing
0 -10 %	10’	2 1/2 x shrub height
11 - 20%	15’	3 x shrub height
21 - 40%	20’	4 x shrub height
> 40%	30’	6 x shrub height

Figure 4: Minimum tree crown and shrub clump spacing.

Tree Diameter	Average Stem Spacing Between Trees
3	10
4	11
5	12
6	13
7	14
8	15
9	16
10	17
11	19
12	21
13	23
14	24
15	26
16	28
17	29
18	31
19	33
20	35
21	36
22	38
23	40
24	42

Figure 5: Minimum tree spacing for Zone 3.

Dispose of slash (limbs, branches and other woody debris) 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. 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. Lay it 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. A gradual transition into this zone from defensible space standards to other management objectives you may have is suggested. 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 requirements will be dictated by your objectives for your land and the kinds of trees present. See Figure 5 for the *minimum* suggested spacing between “leave” trees. Forest management in Zone 3 is an opportunity for you to increase the health and growth rate of the forest in this zone. Keep in mind that root competition for available moisture limits tree growth and ultimately the health of the forest.

A high canopy forest reduces the chance of a surface fire climbing into the tops of the trees and might be a priority for you if this zone slopes steeply. The healthiest forest is one that has multiple ages, sizes, and species of trees where adequate growing room is maintained over time. Remember to consider the hazards of ladder fuels. Multiple sizes and ages of trees might increase the fire hazard from Zone 3 into Zone 2, particularly on steep slopes.

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.

Special Recommendations

Tree spacing guidelines do not apply to *mature* stands of aspen trees where the recommendations for ladder fuels have been complied with. In areas of aspen regeneration and young trees, the spacing guidelines should be followed.

Brush and shrubs

Brush and shrubs are 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.