

# Protecting Your Home from Wildfire



Conducted by the



**Department of Human Dimensions of Natural Resources,  
Colorado State University  
and**

**Pacific Southwest Research Station,  
United States Forest Service  
With funding from the  
Joint Fire Sciences Program**



***Your help on this study is greatly appreciated!***  
***Please return your completed questionnaire in the enclosed envelope.***  
***The envelope is self-addressed and no postage is required.***

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**Section I. Homeowner defensive forest fire management techniques**

The following pages define things that homeowners can do to protect their homes from forest fire. The photos help illustrate the definitions. Please read each definition and answer the questions that follow.

**Defensible space** creates an area around your house where vegetation (e.g., trees, shrubs, and branches) is cleared or reduced to help protect your home from forest fire. It also reduces the chance of a fire moving from a building to a nearby forest. Defensible space allows firefighters to do their jobs more effectively. Defensible space activities include (but are not limited to) the following:

- Reducing the density of trees within 100 feet of the home
- Cleaning roof surfaces and gutters
- Removing overhanging branches within 10 feet of the roof
- Ensuring that trees & shrubs are at least 15 feet apart



Homes **WITHOUT** defensible space



Homes **WITH** defensible space



• During the time that you have lived at your current address, have you done any of the following defensible space activities? (*Check all that apply or Does Not Apply to my residence*)

- |  | <b>Does Not Apply</b>    |
|--|--------------------------|
| <input type="checkbox"/> Cleaned roof surfaces/gutters to avoid accumulation of leaves   | <input type="checkbox"/> |
| <input type="checkbox"/> Trimmed the branches that extend over your roof   | <input type="checkbox"/> |
| <input type="checkbox"/> Stacked firewood/lumber at least 30 feet from house   | <input type="checkbox"/> |
| <input type="checkbox"/> Used non-flammable building materials such as tile, slate, brick, heavy timber, or stone              | <input type="checkbox"/> |
| <input type="checkbox"/> Planted fire resistant plants   | <input type="checkbox"/> |
| <input type="checkbox"/> Planted trees and shrubs at least 15 feet apart   | <input type="checkbox"/> |
| <input type="checkbox"/> Pruned the branches of all trees within 75 feet of your house to a height of 10 feet above the ground | <input type="checkbox"/> |
| <input type="checkbox"/> Cut down trees under electrical lines   | <input type="checkbox"/> |
| <input type="checkbox"/> Reduced the density of trees within 100 feet of your home   | <input type="checkbox"/> |
| <input type="checkbox"/> Installed house number in clearly visible place   | <input type="checkbox"/> |

- How *effective* are each of the following defensible space activities in protecting a property from a fire. (*Circle one number for each statement*).

<i>Defensible Space Activities</i>	Not at all Effective	Slightly Effective		Slightly Effective	Quite Effective		Extremely Effective
Cleaning roof surfaces/gutters to avoid accumulation of leaves	1	2	3	4	5	6	7
Trimming the branches that extend over your roof	1	2	3	4	5	6	7
Stacking firewood/lumber at least 30 feet from the house	1	2	3	4	5	6	7
Using non-flammable building materials such as tile, slate, brick, heavy timber, or stone	1	2	3	4	5	6	7
Planting fire resistant plants	1	2	3	4	5	6	7
Planting trees and shrubs at least 15 feet apart	1	2	3	4	5	6	7
Pruning the branches of all trees within 75 feet of the house to a height of 10 feet above the ground	1	2	3	4	5	6	7
Cutting down trees under electrical lines	1	2	3	4	5	6	7
Reducing the density of trees within 100 feet of the home	1	2	3	4	5	6	7
Installing house number in clearly visible place	1	2	3	4	5	6	7

- Do defensible space activities make your property safer in the event of a fire? (*Circle one number*)

1	2	3	4	5	6	7	8	9
Makes no difference	Slightly safer		Moderately safer			Extremely safer		

- Do defensible space activities make your home/property look better or worse? (*Circle one number*)

1	2	3	4	5	6	7	8	9
Extremely worse	Slightly worse		Neither	Slightly better		Extremely better		

- How *likely* you are to do each of the following defensible space activities in the future? (*Circling one number for each activity*).

<i>Defensible Space Activities</i>	Not at all Likely	Slightly Likely		Moderately Likely	Quite Likely	Extremely Likely	Does Not Apply	
Clean roof surfaces/gutters to avoid accumulation of leaves	1	2	3	4	5	6	7	8
Trim the branches that extend over your roof	1	2	3	4	5	6	7	8
Stack firewood/lumber at least 30 feet from house	1	2	3	4	5	6	7	8
Use non-flammable building materials such as tile, slate, brick, heavy timber, or stone	1	2	3	4	5	6	7	8
Plant fire resistant plants	1	2	3	4	5	6	7	8
Plant trees and shrubs at least 15 feet apart	1	2	3	4	5	6	7	8
Prune the branches of all trees within 75 feet of your house to a height of 10 feet above the ground	1	2	3	4	5	6	7	8
Cut down trees under electrical lines	1	2	3	4	5	6	7	8
Reduce the density of trees within 100 feet of your home	1	2	3	4	5	6	7	8
Install house number in clearly visible place	1	2	3	4	5	6	7	8



**Firewise construction** is the use of fire-resistant materials in the construction of homes. Firewise construction lessens a home's chances of catching on fire during a forest fire. Firewise construction modifications include (but are not limited to) the following:

- Fire resistant roofs made of aluminum, steel, concrete, clay, or slate
- House exteriors made of metal, stucco, stone, tile, heavy timber, or masonry
- Enclosure of the undersides of decks and balconies
- Windows, doors, and eaves that allow for proper air venting



**Home made of heavy timber**



**Home with enclosed deck**



**Home made of stucco**



**Home with aluminum roof**

- During the time that you have lived at your current address, have you done any of the following *firewise construction* modifications? (**Check all that apply or Does Not Apply to my residence**)

**Does Not Apply**

- |   |                          |
|---|--------------------------|
| <input type="checkbox"/> Installed a fire resistant roof                                    | <input type="checkbox"/> |
| <input type="checkbox"/> Installed screening over roof vents                                | <input type="checkbox"/> |
| <input type="checkbox"/> Installed fire resistant siding on house or other buildings        | <input type="checkbox"/> |
| <input type="checkbox"/> Installed windows or sliding glass doors that are multi-pane glass | <input type="checkbox"/> |
| <input type="checkbox"/> Enclosed the undersides of decks or balconies                      | <input type="checkbox"/> |

- How *effective* are each of the following *firewise construction* modifications in protecting your home from a fire? (*Circle one number for each activity*)

<i>Firewise Construction Activities</i>	Not at all Effective	Slightly Effective		Slightly Effective	Quite Effective		Extremely Effective
A fire resistant roof	1	2	3	4	5	6	7
Screens over roof vents	1	2	3	4	5	6	7
Fire resistant siding on house or other buildings	1	2	3	4	5	6	7
Multi-pane glass windows and sliding glass doors	1	2	3	4	5	6	7
Enclosed undersides of decks and balconies	1	2	3	4	5	6	7

- Do firewise construction activities make your property safer in the event of a fire? (*Circle one number*)

1	2	3	4	5	6	7	8	9
Makes no difference	Slightly safer		Moderately safer			Extremely safer		

- Do firewise construction modifications make your home look better or worse? (*Circle one number*)

1	2	3	4	5	6	7	8	9
Extremely worse	Slightly worse		Neither	Slightly better		Extremely better		

- How *likely* you are to do each of the following firewise construction activities in the future (*Circle one number for each activity*)

<i>Firewise Construction Activities</i>	Not at all Likely	Slightly Likely		Moderately Likely	Quite Likely		Extremely Likely	Does Not Apply
Install a fire resistant roof	1	2	3	4	5	6	7	8
Install screens over roof vents	1	2	3	4	5	6	7	8
Install fire resistant siding on house or other buildings	1	2	3	4	5	6	7	8
Install multi-pane glass windows or sliding glass doors	1	2	3	4	5	6	7	8
Enclose undersides of decks and balconies	1	2	3	4	5	6	7	8

## Section II. Barriers to Defensible Space and Firewise Construction

When deciding whether to take action to reduce the risk of loss due to wildfire on your property, how much of a barrier is each of the following items? (*Circle one number for each statement*)

	<b>Not a Barrier</b>		<b>Minor Barrier</b>		<b>Moderate Barrier</b>		<b>Extreme Barrier</b>
Cost of doing defensible space activities	1	2	3	4	5	6	7
Cost of firewise construction activities	1	2	3	4	5	6	7
Time it takes to implement actions	1	2	3	4	5	6	7
Lack of information about how to reduce risk	1	2	3	4	5	6	7
Lack of knowledge about defensible space	1	2	3	4	5	6	7
Lack of knowledge about firewise construction	1	2	3	4	5	6	7
Disagreement with recommended actions	1	2	3	4	5	6	7
Lack of authority to make changes to property	1	2	3	4	5	6	7
Not enough space on property to make recommended defensible space changes	1	2	3	4	5	6	7
Physical difficulty of doing the work	1	2	3	4	5	6	7
Amount of work it would take to make the recommended changes	1	2	3	4	5	6	7
Aesthetic impact on my property	1	2	3	4	5	6	7
Would decrease the natural look of my property	1	2	3	4	5	6	7
Neighbors do not do defensible space	1	2	3	4	5	6	7
Would decrease my privacy	1	2	3	4	5	6	7
Availability of expert advice	1	2	3	4	5	6	7
The terrain on my property	1	2	3	4	5	6	7
Requires remodeling my home	1	2	3	4	5	6	7
Procrastination	1	2	3	4	5	6	7
Lack of equipment (e.g., chain saw)	1	2	3	4	5	6	7
Community does not have yard waste disposal	1	2	3	4	5	6	7
Property layout	1	2	3	4	5	6	7

### Section III. Beliefs about Fire and Homeowner Activities

Indicate below how strongly you AGREE or DISAGREE with *each* of the following statements. While some statements may sound similar, please read and respond to each of them. (*Circle one number for each statement*).

	Strongly Disagree	Moderately Disagree	Slightly Disagree	Neutral	Slightly Agree	Moderately Agree	Strongly Agree
Homeowners should be personally responsible for protecting their homes from fire (e.g., creating defensible space).	1	2	3	4	5	6	7
Homeowners are the <i>most responsible</i> for protecting their homes, near a forest, from wildfire.	1	2	3	4	5	6	7
The community fire department is the <i>most responsible</i> for protecting homes, built near a forest, from wildfire.	1	2	3	4	5	6	7
Land management agencies are <i>most responsible</i> for protecting homes, built near a forest, from fire.	1	2	3	4	5	6	7
If a wildfire breaks out, the first priority of the agency managing that forest is to make sure private property is not destroyed.	1	2	3	4	5	6	7
If a wildfire breaks out, the first priority of land management agencies is to ensure public safety.	1	2	3	4	5	6	7
Laws should prohibit people from building homes near forests where they can be burned by fires.	1	2	3	4	5	6	7
People should be allowed to build homes where they want, even if it is in a high wildfire zone.	1	2	3	4	5	6	7
Homeowners near a forest should be required by law to take steps necessary to protect their homes from wildfire.	1	2	3	4	5	6	7
In the event of a forest fire, my home would be protected by firefighters.	1	2	3	4	5	6	7
Creating defensible space around homes should be voluntary.	1	2	3	4	5	6	7
Homes with defensible space should be protected from forest fire before homes that HAVE NOT taken such steps.	1	2	3	4	5	6	7
New home construction should be required by law to use fire resistant materials.	1	2	3	4	5	6	7
Using fire resistant materials in construction should be voluntary.	1	2	3	4	5	6	7
Creating defensible space around my home makes it safer for firefighters.	1	2	3	4	5	6	7
Without defensible space, firefighters will not be able to protect my home.	1	2	3	4	5	6	7
Defensible space activities are not necessary because my insurance company will cover any losses due to wildfire.	1	2	3	4	5	6	7
My defensible space activities will be ineffective if my neighbors do not take similar actions.	1	2	3	4	5	6	7

**Section IV. Perceived Risk**

- To what extent do you consider each of the following to be at risk from wildland fire?  
(Circle one number for each statement)

	No Risk		Slight Risk		Moderate Risk			Extreme Risk	
Your own home	1	2	3	4	5	6	7	8	9
Your neighbors' homes	1	2	3	4	5	6	7	8	9
The community in which you live	1	2	3	4	5	6	7	8	9

- How much do you think each of the following contributes to the chances of a wildfire damaging your property?  
(Circle one number for each statement)

	Not at all		Slightly		Moderately			A lot	
Vegetation on your property	1	2	3	4	5	6	7	8	9
Physical characteristics of your property other than vegetation (e.g., steep inclines)	1	2	3	4	5	6	7	8	9
Physical characteristics of your house (e.g., roofing or siding)	1	2	3	4	5	6	7	8	9
Vegetation on your neighbors' properties	1	2	3	4	5	6	7	8	9
Vegetation on nearby public land	1	2	3	4	5	6	7	8	9
Road access	1	2	3	4	5	6	7	8	9
Diseases and pests (e.g., bark beetle, dwarf mistletoe)	1	2	3	4	5	6	7	8	9
Other (Please specify): _____	1	2	3	4	5	6	7	8	9

- The following statements refer to your perceptions of risk related to wildfire. (Circle one number for each statement)

	Not at all Likely		Slightly Likely		Moderately Likely		Quite Likely		Extremely Likely	
How likely do you think that your community will experience a fire event in the near future?	1	2	3	4	5	6	7			
If a wildland fire were threatening your home, to what extent do you feel you have the capacity to defend your home?	1	2	3	4	5	6	7			



## Section V. Community Protection Activities

Below is a list of community related activities that residents can undertake to prepare for wildland fire. Please respond to *each* statement in to both column A and column B.

Community Activities	COLUMN A		COLUMN B HOW LIKELY ARE YOU TO DO THIS IN THE FUTURE?						
	DO YOU DO THIS NOW?		Not at all Likely	Slightly Likely	Moderately Likely	Quite Likely	Extremely Likely		
Attend community-based meetings related to wildland fire	Yes	No	1	2	3	4	5	6	7
Attend a public meeting about defensible space	Yes	No	1	2	3	4	5	6	7
Participate in wildfire-related events (e.g., slash collection day)	Yes	No	1	2	3	4	5	6	7
Help organize community education programs related to wildland fire	Yes	No	1	2	3	4	5	6	7
Work with your neighbors to reduce the risk of wildfire on your property or that of your neighbors	Yes	No	1	2	3	4	5	6	7
Participated in a neighborhood or community effort to clear trees	Yes	No	1	2	3	4	5	6	7
Volunteer within the community to help clear and remove combustible material (e.g., brush, litter)	Yes	No	1	2	3	4	5	6	7
Obtain additional information from a land management, community group, or firefighting agency on how to prepare for wildland fire	Yes	No	1	2	3	4	5	6	7
Consult with public officials or foresters	Yes	No	1	2	3	4	5	6	7
Other: _____	Yes	No	1	2	3	4	5	6	7

## Section VI. Information Sources

Please select the response that indicates your agreement or disagreement with each of the following statements. (*Circle one number for each statement*).

	Strongly Disagree	Slightly Disagree	Neutral	Slightly Agree	Strongly Agree
I know where to go or who to contact if I have questions about defensible space.	1	2	3	4	5
I have discussed defensible space issues with others (e.g., family, neighbors).	1	2	3	4	5
My awareness of defensible space issues has increased during the past year.	1	2	3	4	5

From which of the following sources have you received information about reducing the risk of wildfire? (*Check all that apply*)

- |   |   |
|---|---|
| <input type="checkbox"/> Neighborhood group (homeowners group, local board, etc.) | <input type="checkbox"/> County wildfire specialist   |
| <input type="checkbox"/> Neighbors, friends, or family members                    | <input type="checkbox"/> Colorado State Forest Service  |
| <input type="checkbox"/> Media (newspaper, TV, radio, internet)                   | <input type="checkbox"/> Federal agency (e.g., U.S. Forest Service, National Park Service)              |
| <input type="checkbox"/> Local fire department                                    | <input type="checkbox"/> Other → Please describe: _____   |
|   | <input type="checkbox"/> None of the above,<br>I have not received any information about wildfire risk. |

## Section VIII. *Trust and Credibility*

- This section asks for your views on the wildfire management agencies *in your area*. Please indicate the extent to which you agree or disagree with each of the following statements. **(Circle one number for each statement)**

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With respect to recommendations for defensible space, the wildfire management agencies ...	Strongly Disagree	Moderately Disagree	Slightly Disagree	Neutral	Slightly Agree	Moderately Agree	Strongly Agree
... share similar values as me	1	2	3	4	5	6	7
... share similar opinions as me	1	2	3	4	5	6	7
... think in a similar way as me	1	2	3	4	5	6	7
... take similar actions as I would	1	2	3	4	5	6	7
... share similar goals as me	1	2	3	4	5	6	7

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Please indicate the extent to which you agree or disagree with each of the following statements regarding your trust in wildfire management agencies. **(Circle one number for each statement)**

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With respect to recommendations for defensible space, I <b>trust</b> the wildfire management agencies in my area to ...	Strongly Disagree	Moderately Disagree	Slightly Disagree	Neutral	Slightly Agree	Moderately Agree	Strongly Agree
... provide the best available information	1	2	3	4	5	6	7
... provide me with enough information to decide what actions I should take	1	2	3	4	5	6	7
... provide truthful information	1	2	3	4	5	6	7

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## Section IX. *Experience with Fire*

- We would like to know about the kinds of experiences you have had with forest fires. Please check any of the following experiences you have personally had related to forest fire. **(Check all that apply)**.

- Been injured as a result of a forest fire
- Had personal property destroyed or damaged due to a forest fire or threat of wildfire
- Experienced discomfort from the smoke of a forest fire
- Had my work/job/livelihood affected by a forest fire
- Residence damaged or lost due to a wildfire
- Been evacuated from my house due to a forest fire
- Received a reverse 911 call to prepare to evacuate
- Know someone who has been evacuated from her/his residence due to a wildfire
- Known someone whose residence has been damaged or lost due to a wildfire

