



Colorado Wildfire

High School Hazard Lesson

Setting the Stage



The Black Forest Fire burning east of Colorado Springs, 2013.
Photo Credit: U.S. Air Force Photo/Carol Lawrence

Driving Question:

What can we learn from past wildfires to prepare for future wildfires?

What You Will Be Doing:

- Analyze wildfire data to identify patterns of wildfire history and risk in Colorado.
- Communicate information about the causes and effects of wildfires in your community. Explain what community members should do to be safe in the event of a wildfire.

Part 1

What do you know about wildfires in Colorado?

KWL Chart	
What I K now	
What I W onder	
What I L earned (Activity 3)	



Watch: [RAW Video: Evacuating the Waldo Canyon Fire](#)



Watch: [The Waldo Canyon fire, five years later: Colorado Springs rebuilds](#)

What do you know about wildfires in Colorado?

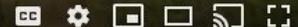
KWL Chart	
What I Know	
What I Wonder	
What I Learned (Activity 3)	

Wildfires in Colorado with Megan Cattau, PhD

Postdoctoral Research Associate at the
Earth Lab at University of Colorado Boulder



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Watch: [Wildfires in Colorado with Megan Cattau](#), **STOP @ 3:36**

Part 2

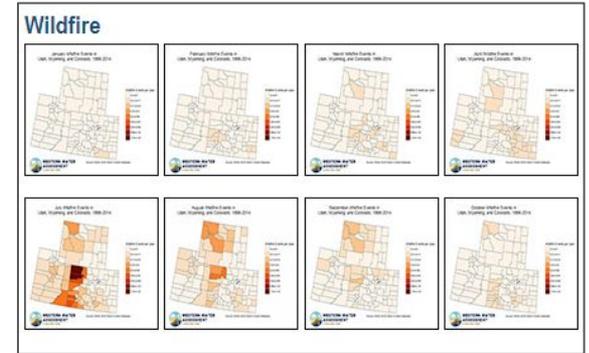
Wildfire Data Analysis Jigsaw

Year	# of Lightning Caused Fires	Acres Burned by Lightning Caused Fires	# of Human Caused Fires	Acres Burned by Human Caused Fires
2001	2,114	6,453	4,135	75,483
2002	2,039	428,510	2,118	661,679
2003	1,918	93,354	4,214	87,823
2004	1,340	16,921	704	35,346
2005	1,398	37,857	1,940	48,356
2006	2,479	449,089	2,968	209,693
2007	1,672	76,502	1,876	85,442
2008	941	111,147	1,616	117,554
2009	1,090	30,346	1,434	76,842
2010	941	32,929	1,962	118,702
2011	1,328	216,228	2,105	300,776
2012	1,992	850,596	3,592	393,477
2013	1,166	201,863	1,455	35,258
2014	689	6,522	1,667	71,823
2015	650	16,951	1,909	163,871
2016	1,247	156,090	2,048	530,831
2017	1,014	109,585	2,150	645,162
2018	1,086	244,540	1,394	504,416
2019	736	64,942	948	49,743

Group 1



Group 2



Group 3

The Home Ignition Zone

Two factors have emerged as the primary determinants of a home's ability to survive a wildfire – quality of the **defensible space** around the home and the home's **structural ignitability**.

Together, these two factors create a concept called the **Home Ignition Zone (HIZ)**, which includes the structure and the space immediately surrounding the structure. To protect a home from wildfire, the primary goal is to reduce or eliminate fuels and ignition sources within the HIZ.

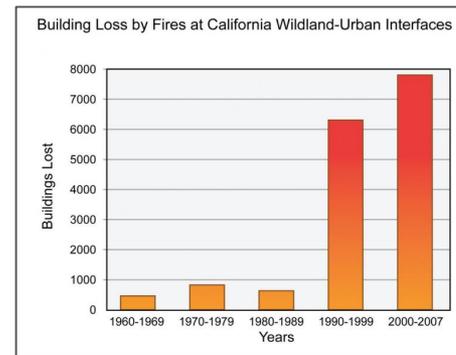


Defensible Space

Defensible space is the area around a home or other structure that has been modified to reduce fire hazard. In this area, natural and manmade fuels are treated, cleared or reduced to slow the spread of wildfire. Creating defensible space also works in the reverse, and reduces the chance of a structure fire spreading to neighboring homes or the surrounding forest. Defensible space gives your home a fighting chance against an approaching wildfire.

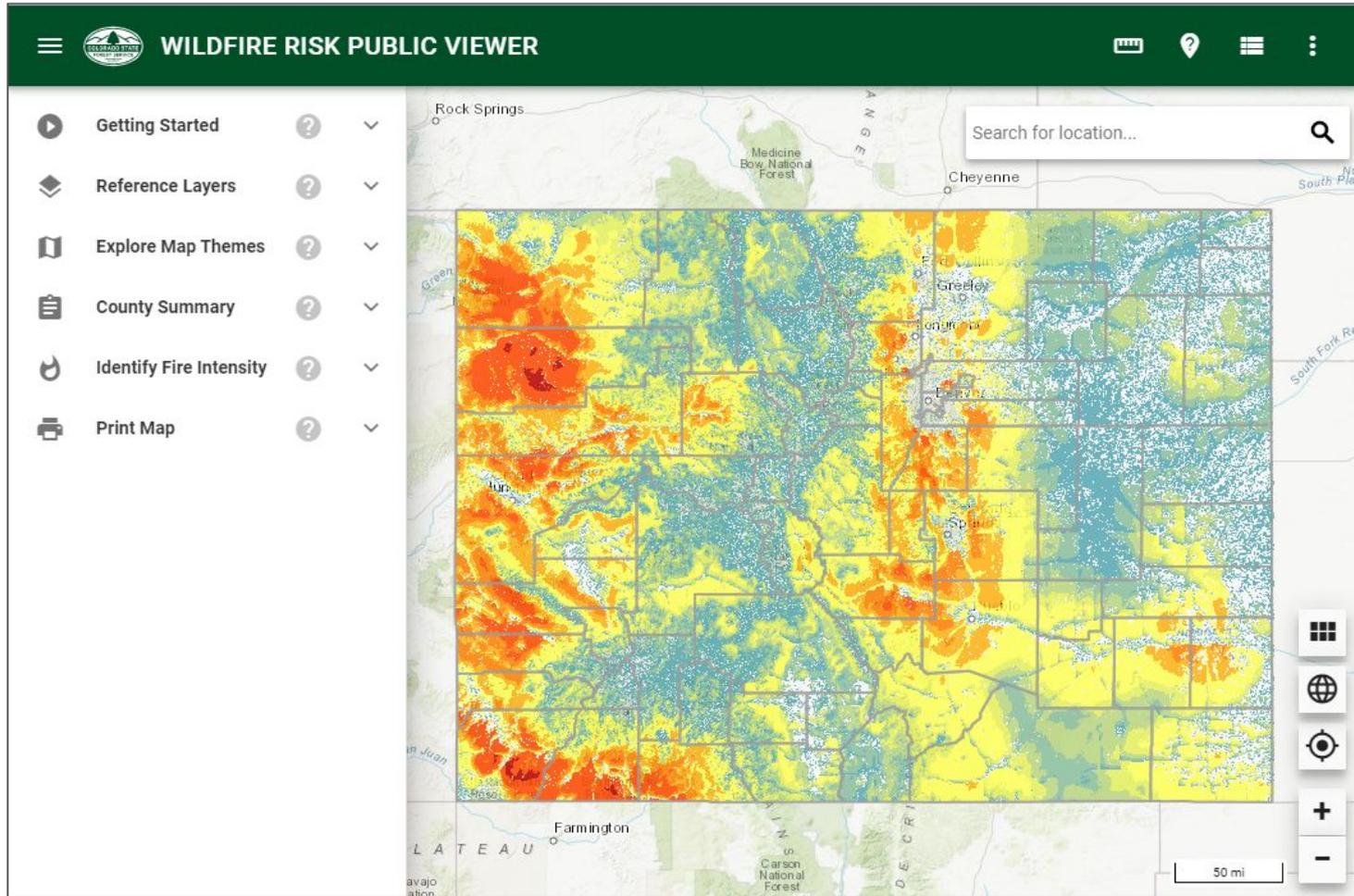
Creating an effective defensible space involves a series of management zones in which different treatment techniques are used. Develop these zones around each building on your property, including detached garages, storage buildings, barns and other structures.

Group 4



Group 5

All Groups: Community Wildfire Risk GIS Activity



Explore: [Colorado State Forest Service Wildfire Risk Public Viewer](https://cires.colorado.edu/outreach/)

Part 3

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Part 3

Wildfire Expert Interview



Watch: Start @ 3"36 [Wildfire Expert Video](#)

Wildfire Letter to the Editor

Assignment: Write a persuasive letter to the editor that explains current wildfire risk in your community. The letter should be 500-600 words and include:

- Address the letter “Dear Editor,”
- The first sentence should introduce the topic, and explain why readers should be concerned about wildfire
- How wildfires start
- Historic wildfires in your community
- What time of year wildfires occur
- Wildfire mitigation strategies
- How wildfires frequency and severity will change with climate change
- What areas in your community are most vulnerable to wildfires

Letters to the editor are typically brief (500-600 words), so write with brevity and clarity.