



# National Forest Roadless Areas Pose No Threat To Communities At Risk From Wildfire

## Key Points

- Less than 0.1% of inventoried national forest roadless areas are within a half mile of communities at risk from wildfire.
- Just 0.34% of half-mile-wide community protection zones contain inventoried national forest roadless areas.
- The Roadless Area Conservation Rule has a common-sense solution to combat fires and protect homes.

## Background

Inventoried roadless areas cover about one-third of national forests and 2% of all land in the United States. Despite their many proven benefits to people and wildlife alike, controversy over management of these wild enclaves has existed for more than a quarter of a century.

On January 12, 2001 — after an extensive federal rule-making process that resulted in overwhelming public support for conservation of roadless areas — the USDA Forest Service adopted the Roadless Area Conservation Rule. This new policy protected 58.5 million acres of undeveloped national forest land from most logging and road construction.

Still, the controversy continues. Many of those who oppose protection of roadless areas claim that road construction and logging in roadless areas are needed to remove fuel loads and thus save homes and communities

from wildfire on federal lands.

On May 4, 2001, Secretary of Agriculture Ann Veneman announced that the roadless rule would go into effect, but that the Administration would propose amendments to address “reasonable concerns.” One of the five principles guiding the anticipated amendments was protection of “communities, homes, and property from the risk of severe wildfire or other risks existing on adjacent federal lands.”

In short order, the Forest Service issued an Advance Notice of Proposed Rulemaking, seeking public response to ten questions about the roadless area rule. One of the questions asked: “How should communities and private property near inventoried roadless areas be protected from the risks associated with natural events, such as major wildfires that may occur on adjacent federal lands?”<sup>1</sup>



KARI K. BROWN

One of many communities at risk, Ruidoso, New Mexico, will not be protected by Forest Service plans to reduce “hazardous fuels” in national forest inventoried roadless areas.

<sup>1</sup> USDA Advance Notice of Proposed Rulemaking, July 10, 2001, 66 *Fed. Reg.* 35918

▼ This Science & Policy Brief identifies roadless areas located within half-mile-wide community protection zones — areas where management of fuel loads is important to protect homes from wildfire. ▲

Two years later, on June 9, 2003, Department of Agriculture officials stated the Forest Service would propose an amendment that allows state governors to request exemptions from the roadless rule for “exceptional circumstances” — including reduction of “hazardous fuels” in national forest inventoried roadless areas to “provide a safe buffer to a community from the effects of a severe wildfire.”<sup>2</sup>

It appears that the Forest Service’s proposed amendment is driven by a number of questionable assumptions, not the least of which is that national forest inventoried roadless areas lie in close proximity to communities and thus pose an imminent threat from wildfire.

This Science & Policy Brief addresses that assumption, adding much needed information to the public debate. It describes the methodology and presents the results of a Geographic Information Systems (GIS) analysis of the spatial

TABLE 1.

**Summary of overlap between inventoried roadless areas and CPZs in conterminous U.S.**

Community protection zones (CPZs)	11,384,696 acres
Inventoried roadless areas	43,386,005 acres
Overlap	38,383 acres
<b>Inventoried roadless areas in CPZs</b>	<b>0.34%</b>
<b>CPZ acres in inventoried roadless areas</b>	<b>0.09%</b>

relationship between national forest inventoried roadless areas and the 9,340 communities in the conterminous 48 states that state and federal governments consider at risk from fire on federal lands. Specifically, this Brief identifies roadless areas located within half-mile-wide community protection zones — areas where management of fuel loads is important to protect homes from wildfire.

**Where Are The Communities At Risk And Roadless Areas?**

In August 2001, Secretary of the Interior Gail Norton and Secretary of Agriculture Veneman posted a list of communities in the vicinity of federal lands that each state identified as being at risk of fire.<sup>3</sup> Using that list, the U.S. Geological Survey’s Rocky Mountain Mapping Center created a digital map of more than 9,000 points across the country identifying the communities at risk.

We incorporated that map into our GIS analysis, along with satellite classification of land cover from the U.S. Geological Survey’s National Land Cover Dataset, to distinguish low-density residential, high-density residential, and commercial/industrial land cover classes.<sup>4</sup> This process created a map of built-up areas — the “urban footprint” — as small as 30 meters<sup>2</sup>.



CHUCK PEZESHKI

Mallard-Larkins Roadless Area in the Idaho Panhandle National Forest

<sup>2</sup> USDA Roadless Questions and Answers, June 9, 2003.

<sup>3</sup> [http://www.fireplan.gov/community\\_papers.cfm](http://www.fireplan.gov/community_papers.cfm)

<sup>4</sup> <http://edc.usgs.gov/products/landcover/nlcd.html>

TABLE 2.

**State-by-state overlap between national forest inventoried roadless acreage  
and community protection zones (CPZs)**

The 23 states listed contain overlap, while 25 other states with 3,655,789 CPZ acres and 540,890 acres of inventoried roadless areas have no overlap. The two states not included in this analysis — Alaska and Hawaii — also have no overlap.

STATE	Overlap (acres)	Total CPZ acreage	Percent of overlap in CPZs	Total inventoried roadless area acreage	Percent of inventoried roadless areas in CPZs
Utah	9,317	282,016	3.30	4,360,907	0.21
Colorado	7,562	328,756	2.30	4,296,685	0.18
California	4,313	1,474,092	0.29	4,270,415	0.10
Wyoming	4,276	114,856	3.72	3,190,837	0.13
North Carolina	3,160	519,983	0.61	168,209	1.88
Idaho	2,896	382,411	0.76	9,223,224	0.03
Nevada	1,630	231,309	0.70	3,120,270	0.05
Oregon	1,241	319,834	0.39	1,926,324	0.06
Montana	951	172,422	0.55	6,374,978	0.01
Tennessee	610	194,106	0.31	85,409	0.71
Georgia	582	1,364,119	0.04	63,190	0.92
Virginia	563	758,115	0.07	383,750	0.15
Arizona	287	98,771	0.29	1,149,236	0.03
Washington	255	356,848	0.07	1,984,346	0.01
Arkansas	142	155,576	0.09	93,899	0.15
New Mexico	135	51,249	0.26	1,577,195	0.01
West Virginia	129	115,493	0.11	199,560	0.06
Oklahoma	124	488,390	0.03	13,495	0.92
New Hampshire	113	38,179	0.30	228,086	0.05
Missouri	42	98,874	0.04	25,306	0.17
South Carolina	28	62,431	0.05	6,402	0.45
South Dakota	14	82,267	0.02	79,484	0.02
Vermont	3	38,808	0.01	23,909	0.01

For each designated community at risk where we could establish an urban footprint, we expanded that footprint by half a mile to create a community protection zone. For at-risk communities where we could not establish an urban footprint, we created a half-mile-wide community protection zone around the point shown

on the U.S. Geological Survey data.

To calculate the amount of overlap between national forest inventoried roadless areas and community protection zones, we overlaid the community protection zone map with a map of inventoried roadless areas acquired from the Forest Service.<sup>5</sup>

<sup>5</sup> [www.roadless.fs.fed.us/documents/feis/data/gis/coverages/index.shtml](http://www.roadless.fs.fed.us/documents/feis/data/gis/coverages/index.shtml)  
The Forest Service used a different method to evaluate the relationship between inventoried roadless areas and community protection zone demographics. Nevertheless, the agency's conclusions were similar to those in this analysis. The Forest Service stated that the effect of the roadless rule on fuel treatments in community protection zones "is expected to be slight," since relatively few populated areas occur on boundaries between inventoried roadless areas and private lands (Final Environmental Impact Statement on Forest Service Roadless Area Conservation, Volume 1, p. 3-95).

▼  
Results of our analysis are clear: there is little national forest roadless land in close proximity to homes and communities.  
▲

### Very Little Roadless Land Overlaps Community Protection Zones

The analysis found that less than one-tenth of one percent of all inventoried roadless areas is within a half mile of an at-risk community in the conterminous 48 states. In addition, just one-third of one percent of the half-mile-wide community protection zones consists of inventoried roadless areas. Table 1 (page 2) summarizes the overlap — 38,383 acres — between inventoried roadless areas and community protection zones outside Alaska and Hawaii. This analysis did not include the 54 at-risk communities in Hawaii or the 23 at-risk communities and 15 million acres of inventoried roadless areas in Alaska because of inadequate land coverage data for those states. However, at-risk communities in Alaska and Hawaii, when coupled with just an overlay of inventoried roadless areas, showed no overlap.

Table 2 (page 3) contains a state-by-state breakdown for the 23 states with any overlap between inventoried roadless areas and community protection

zones. As the table shows, no state contains more than 10,000 acres of overlap.

The 23 states listed contain overlap, while an additional 25 states with 3,655,789 acres of community protection zones and 540,890 acres of inventoried roadless areas have no overlap. The two states not included in this analysis — Alaska and Hawaii — also have no overlap.

### Where To Next?

The results of this analysis are clear: there is little national forest roadless land in close proximity to homes and communities.

The policy implications of this finding are equally clear: concerns about wildfire threats from national forest roadless areas should not be used as an excuse to weaken the Roadless Area Conservation Rule — particularly because the rule already provides a common-sense solution to combat fires and protect homes and private property. It allows both road construction and thinning in roadless areas for these purposes, where deemed necessary for public health and safety.