Solutions to the Rising Costs of Fighting Fires in the Wildland-Urban Interface

10 Ideas
Residential Development at the Public-Private Land Interface

Federal/Private Land Interface
- Residential within 500m or Federal Land
- Protected/Private Land Interface
- Residential within 500m of Protected Land

Residential
- Including Urban, Suburban, & Exurban

Counties

Federal Lands
- Federal Lands
- Protected Lands
- IUCN Categories I-IV

Major Cities
- State Capital
- Population > 50,000

Major Roads
- Limited Access Highway

Data Sources:
- World Mercator Projection
- Map Date: 4/23/2007
Wildland firefighting is dangerous, expensive, & costs are rising

Costs the federal government more than $3 billion per year, **double** the amount from a decade ago

**50-95%** of the costs of wildland firefighting go to protecting homes (according to Forest Services’ Office of Inspector General)

Only **14%** of the WUI the West has homes (86% open for development)

If **50%** were developed, the cost of protecting homes from wildfires could exceed the Forest Service’s annual budget
Why should we care?

Opportunity cost >50% of the Forest Service budget

Sprawl:

Expensive (net loss to county budgets)

Wildlife habitat, water quality

Unfair to taxpayer:

4% of homes in the West in wildland-urban interface
What does it cost to protect homes from wildfire?
Montana example:

- Population: 1970 (49% increase), 2006
- Acres of Residential Development: 1970, 2006 (200% increase)
How much is protecting homes from wildfires currently costing Montana?
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Date: 8/16/2007

Number of Homes: 591
Date: 8/17/2007
Number of Homes: 681
Date: 8/18/2007
Number of Homes: 751
Date: 8/19/2007
Number of Homes: 767
Date: 8/20/2007

Number of Homes: 790
Date: 8/25/2007

Number of Homes: 803
How much is protecting homes from wildfires currently costing Montana?

$7,933 per home

$1,240 per home
Acres developed is the most accurate predictor of costs:

$664 \text{ per residential acre} \times 12 \text{ acres} = \$7,933 \text{ per home}$
Average Annual Cost of Protecting Homes from Wildfires in Montana

30% of the cost is for home protection
In other words ........

This is just the tip of the iceberg

It is going to get a lot worse

Unless we control the pace, scale and pattern of future residential development
What can be done to prevent costs from further going up?
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10 ideas with pros & cons

Control cost on the remaining un-built lands
Fundamental problem

Lack of cost accountability by those who build homes in the WUI and by local governments who authorize new developments on dangerous, fire-prone lands
1. MAPPING

Publish maps identifying areas with high probability of wildland Fires

“... distrustful of local efforts to map hazardous fire zones.”
California City Withheld Data on Fires, Report Says
By THE ASSOCIATED PRESS
October 17, 2010
SAN MARCOS, Calif. (AP) — San Marcos city officials kept secret a color-coded map showing the risk of wildfire danger to various neighborhoods for fear insurance companies would use the information to justify raising rates or dropping policies, according to a newspaper report.
Officials opted to circulate a version of the map that omitted the marking of Coronado Hills and neighboring Attebury as deep red, which signifies “extreme wildfire hazard,” city leaders told The North County Times. Shadings showing five other neighborhoods with “very high” risk were also left off the map.
The map that was released showed all wildfire areas in a uniform shade of green.
The maps were produced after a study commissioned by San Marcos in 2005 to assess wildfire risks for the city’s communities.
The newspaper obtained the color-coded map after it was briefly presented to planning commissioners at a meeting over the summer.
Chief Todd Newman of the Fire Department, City Manager Paul Malone and other city officials said that the color-coded map was intended for internal planning use. It was not made public out of concerns that insurance companies would increase rates or cancel policies for Coronado Hills and Attebury residents if they saw it, the officials said.
They did not explain why the map was shown at the summer meeting.
City leaders said that although they did not release the color-coded map, they provided residents with detailed information about fire risks.
“We develop specific fire threat assessments on a parcel-by-parcel basis,” Mr. Malone told the newspaper. “We make specific recommendations to homeowners in that area. The people that live in that area absolutely do know that they live in a wildfire threat zone.”
One elected official said there had been no reason to withhold the map in 2005.
“I don’t know why that wouldn’t have been released,” Councilman Mike Preston said. “Insurance companies would get hold of it and assessments might go up, and people would be unhappy, but I guess you have to balance that against people knowing about the risk.”
...
2. EDUCATION

Increase awareness of the financial consequences of home building in fire-prone areas

Montana:

California:
Provide technical assistance and financial incentives to help local governments direct future development away from the wildland-urban interface.

**State and Private Forestry** – not just FireWise, but also land use planning

**A new program within Forest Service or FEMA?** – dedicated to financial and technical assistance in land use planning
4. COST SHARE AGREEMENTS

Add incentives for counties to sign agreements that share the costs of wildland firefighting between local and federal entities

**Incentives:**

Higher $ incentives (e.g. State and Private Forestry assistance) to those that sign agreements

**Disincentives:**

Lower $ incentives if agreements not signed
- Withhold reimbursement
- Bill county governments
- Withhold SRS, PILT and other federal revenues

**Administrative:**

Integrate Master Agreements into planning process
Make signing a requirement for Cooperating Agency
5. LAND ACQUISITION

Purchase lands or easements on lands that are fire-prone and at risk of conversion to development

Montana example:

**Montana Working Forests Project**

Cost of fighting wildfires if 100% developed = $74 million

if 50% developed = $37 million

Cost to state to help buy land = $21 million
6. NATIONAL FIRE INSURANCE & MORTGAGE PROGRAM

Apply lessons learned from efforts to prevent development in floodplains.

A National Wildland Fire Insurance Program?

Federal responsibility to map fire-prone lands

Require communities adapt WUI management regulations and ordinances in order to qualify

Require mortgage lenders to make participation in program as condition for a loan

Anyone receiving fire-related disaster assistance has to purchase insurance as a condition
7. **INSURANCE**

Allow insurance companies to charge higher premium in fire-prone areas

Adjust premium based on level of wildland fire risk for each property.

How?

Change state policies: e.g. FAIR Plan laws – make exception for WUI*

Eliminate federal subsidies to reflect true risk?

* There is some evidence in California that insurance costs were a deterrent to development. This was before the passage of FAIR Plan laws.
8. ZONING

Limit development in the wildland-urban interface with local planning and zoning ordinances

Examples:

Napa County, California
Skagit County, Washington
9. **ELIMINATE MORTGAGE INTEREST DEDUCTIONS**

Eliminate home interest mortgage deductions for new homes in the wildland-urban interface

For **new** homes – requires fair warning

In the **most dangerous** places – requires mapping

Only 4% of homes in the West in the WUI

1 in 5 homes is a second home
Induce federal land managers to shift more of the cost of wildland firefighting to local governments

Under what conditions?

If a proposed new development is in a well-know, well-documented fire risk area

If the federal agency has given ample warning

In county commissioners know of the risk and permit development anyway