

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



SUMMARY STATISTICS (page numbers refer to pages in White Paper: *Solutions to the Rising Costs of Fighting Fires in the Wildland-Urban Interface*)

Wildland firefighting is dangerous, expensive, and costs are rising

- Wildland firefighting costs the federal government more than \$3 billion per year, double the amount from a decade ago (page 6)
- In 2008 there were: (page 6)
 - More than 78,000 wildfires nation-wide, burning 5.3 million acres
 - 21 associated firefighter deaths/year over last 10 years
 - More than \$2 billion in associated property damage (1,000 homes destroyed in CA alone)
- 70 percent of federal appropriations for wildland firefighting go to the Forest Service; the remaining 30 percent to the Department of the Interior, including the Bureau of Land Management (page 6)

The growth of homes on fire-prone lands represents significant obstacles for the land management agencies

- Because of homes in the way, only two percent of naturally ignited wildfires are allowed to burn; this exacerbates fuel build-up (page 10)
- From 1999 to 2003, “fire-borrowing” (borrowing from other departments to pay for firefighting) the diversion of money and efforts, has resulted in a transfer of \$2.7 billion from other programs, only 80 percent of which were reimbursed through additional appropriations (page 9)
- Only 14 percent of the wildland-urban interface in the West has homes; if 50 percent were developed, the cost of protecting homes from wildfires could rise to \$4.3 billion, almost the size of the Forest Service’s annual budget (page 11)

Homes built on fire-prone lands add significantly to the cost

- Three reasons for escalating firefighting costs: (1) fuel build-up, (2) hotter, drier weather, and (3) more and more homes built on fire-prone lands (the WUI, or wildland-urban interface) (the three Ws: Wood, Weather, and WUI) (page 6)
- Between 50 to 95 percent of the costs of wildland firefighting go to protecting homes (according to Forest Services’ Office of Inspector General) (page 10)
- A more detailed study in Montana (which is not very urbanized) estimated 27 percent of firefighting costs are attributable to protecting homes in the WUI (page 14). With no controls over future home building, the cost to protect homes from wildfire in MT will grow from \$28 million/year to \$40 million/year. With climate change – a one degree F increase in summertime temperature – costs double, to more than \$84 million/year (page 13)

Not much of the wildland-urban interface is developed

- In the West, 14 percent of the WUI is developed (WUI defined as private land 500 meters of forested public lands) (page 5); 86 percent (more than 20,000 square miles, is open for further development) (page 11)
- In the West, on average 3.2 acres are consumed/person in the WUI; outside the WUI it is 0.5 acres/person (6 times as much in the WUI) (page 5)
- In the West, one in five homes (20 percent) in the WUI is a second home; outside the WUI it is one in 25 homes (four percent) (page 5)
- Only four percent of all homes in the West are in the WUI (page 11)

The costs could get much worse

- 190 million acres of public land surrounding communities (nation-wide) are at risk from extreme fires (page 7)
- Nation-wide 2.2 million homes are expected to be in the WUI by 2030, a 40 percent increase from 2001 (page 12)
- 6,000 acres of open space are lost to development nation-wide every day (page 7)
- The costs of fuels reduction in the WUI are 139 percent higher than outside the WUI (page 7)
- With no controls over future home building, the cost to protect homes from wildfire in Montana will grow from \$28 million/year to \$40 million/year. With climate change – a 1 degree F increase in summertime temperature – costs double, to more than \$84 million/year (page 13)

There are 10 possible solutions (pages 20-60)

1. Publish maps identifying areas with high probability of wildland fires.
2. Increase awareness of the financial consequences of home building in fire-prone areas.
3. Redirect federal aid towards land use planning on private lands.
4. Add incentives for counties to sign firefighting cost share agreements.
5. Purchase or obtain easements on fire-prone lands.
6. Create a national fire insurance and mortgage program to apply lessons from efforts to prevent development in floodplains.
7. Allow insurance companies to charge higher premiums in fire-prone areas.
8. Limit development in the wildland-urban interface with local zoning ordinances.
9. Eliminate home interest mortgage deductions for new homes in the wildland-urban interface.
10. Induce federal land managers to shift more of the cost of wildland firefighting to local governments by reducing their firefighting budgets.

For a copy of the white paper: www.headwaterseconomics.org/wildfire.php.