

Section 3. Inalienable rights. All persons are born free and have certain inalienable rights. **They include the right to a clean and healthful environment** and the rights of pursuing life's basic necessities, enjoying and defending their lives and liberties, acquiring, possessing and protecting property, and seeking their safety, health and happiness in all lawful ways. In enjoying these rights, all persons recognize corresponding responsibilities.



Cory DeStein
Photography

Lolo Peak Fire

Guess Which Half of This Forest is Managed by the Federal Government?



A: The left (mostly dead) half.







**TYPICAL, UNTENDED
NATIONAL FOREST**

Dense, overgrown, unhealthy...

**A catastrophic wildfire
waiting to happen.**



Tinderbox of trees

USFS TESTIMONY

National forests are in worse condition today than 30-40 years ago.

USFS no longer producing positive revenues.

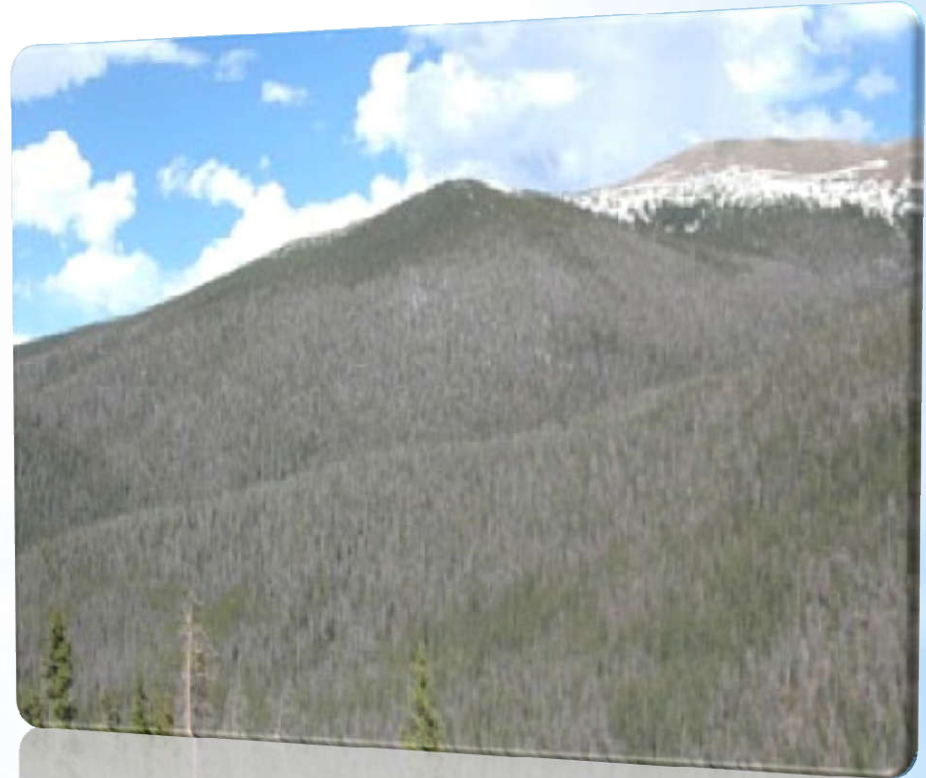
USFS budget mostly allocated to fighting fire and fighting lawsuits instead of resource management.



10 MILE WATERSHED

L&C NF

- * 95% beetle killed
- * Extreme risk of catastrophic fire, erosion, interruption and contamination of Helena's drinking water supply.
- * USFS has been using collaborative process, "Hoping" it will work.
- * MOU - State agreed to bailout the feds by administering & subsidizing Fuel Reduction work on this federal land.
- * The project held up in litigation by environmental groups who are suing the feds to halt the work. = Timber Value diminished.

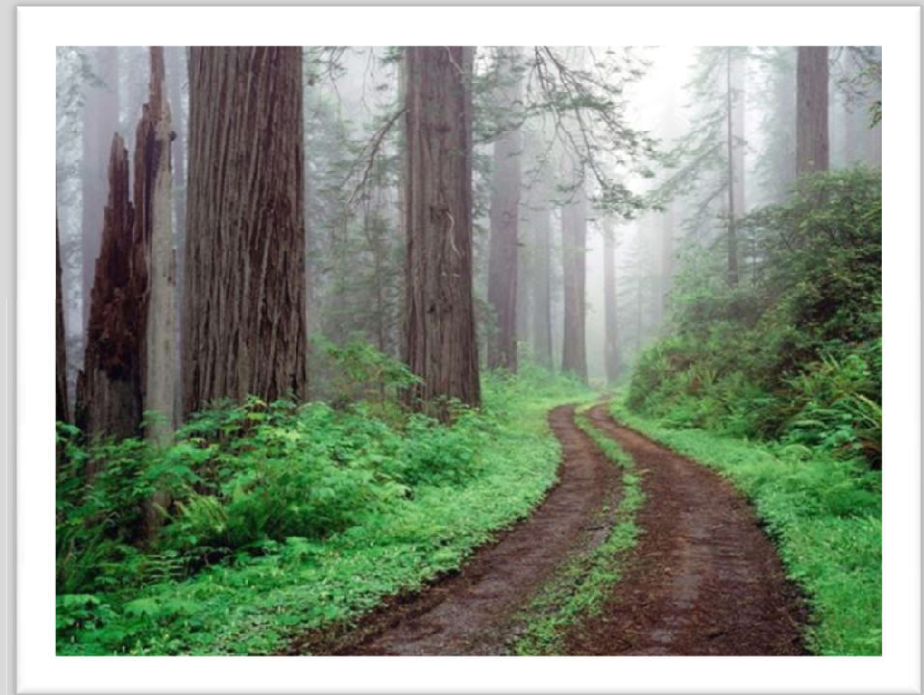


State bailout of feds, successfully reduced the hazard



ACCESS SHUT DOWN

Nearly 24,000
miles of roads
have been closed
to multiple use on
federal lands in
Montana since
1995.

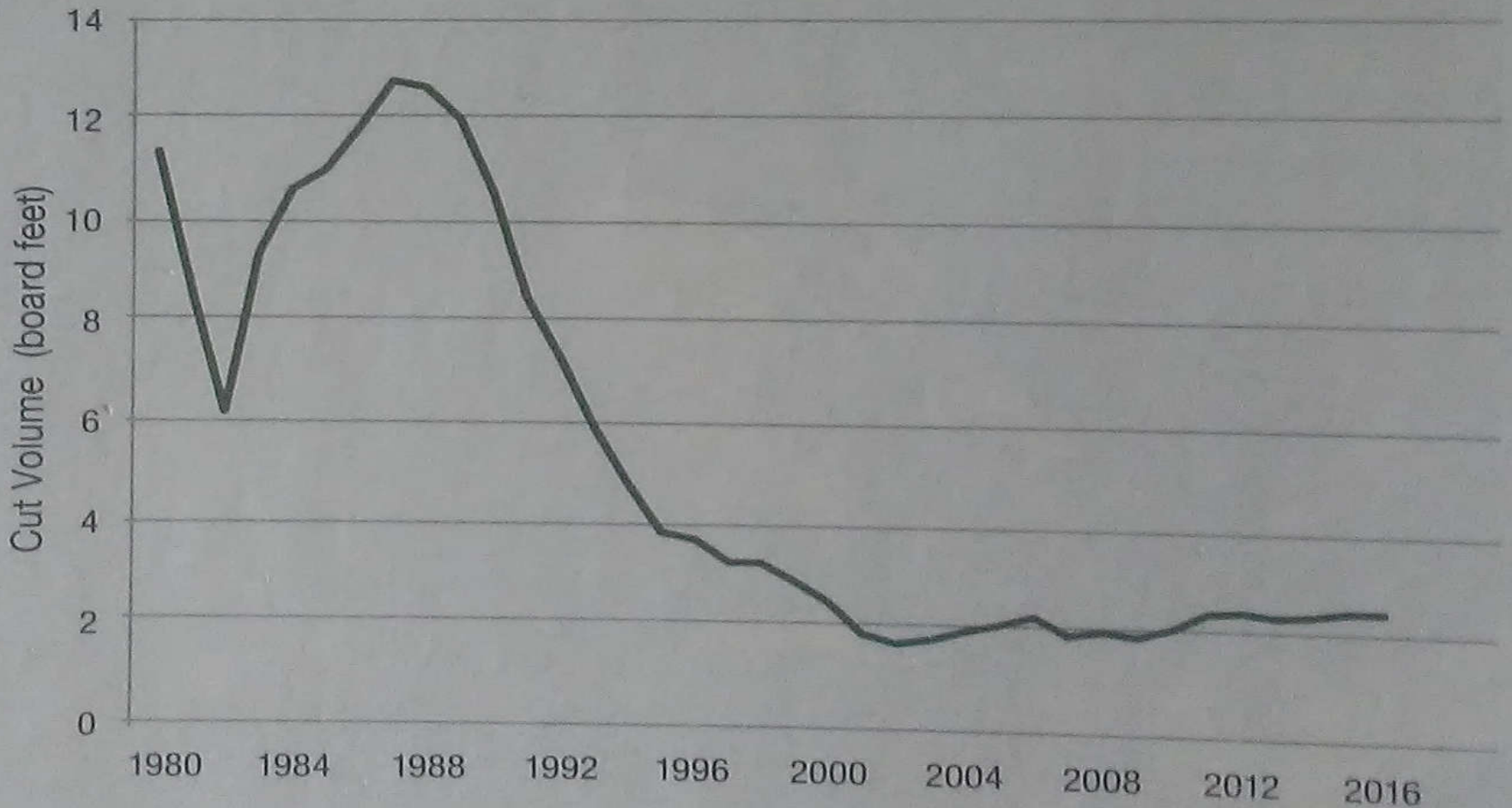


Representative Kerry White HJ 13-
Montana Legislative Study (EQC 2015-16)

U.S. Forest Service timber harvests declined rapidly after the 1980s

Volume of timber cut on national forests (1980-2016)

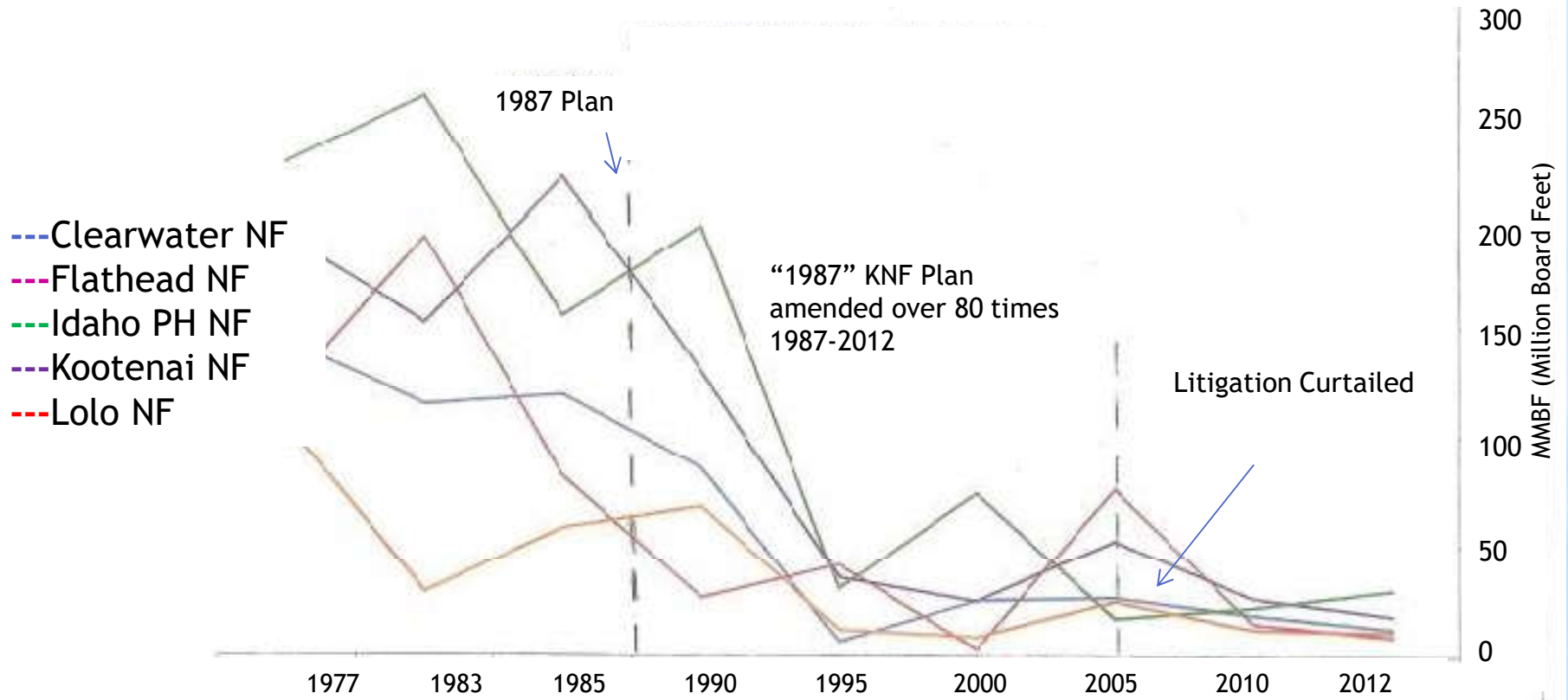
(billions)



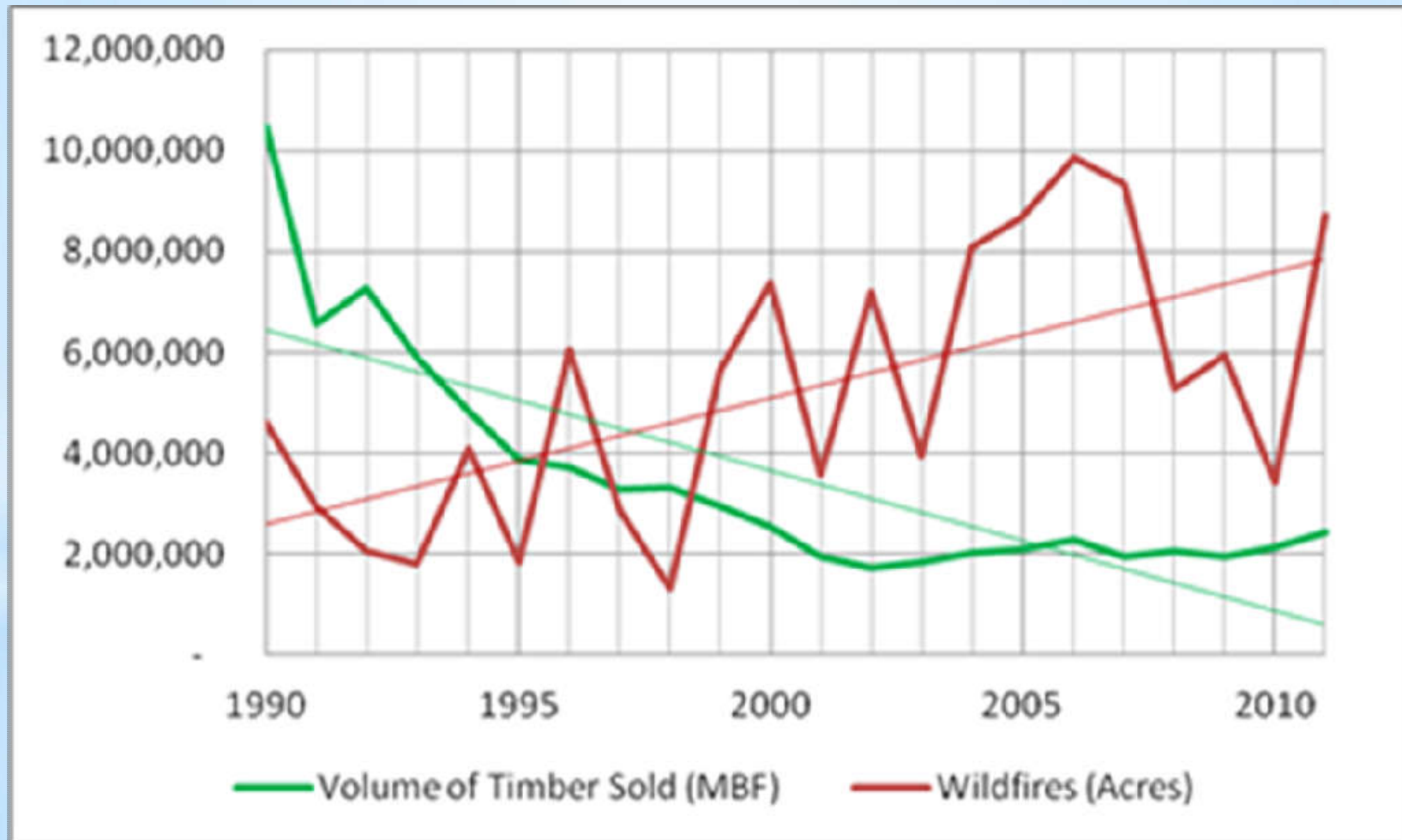
Source: USFS

SAW LOGS SOLD IN STEEP DECLINE

USFS Region 1 Sawlogs Sold MMBF; 1977 - 2012



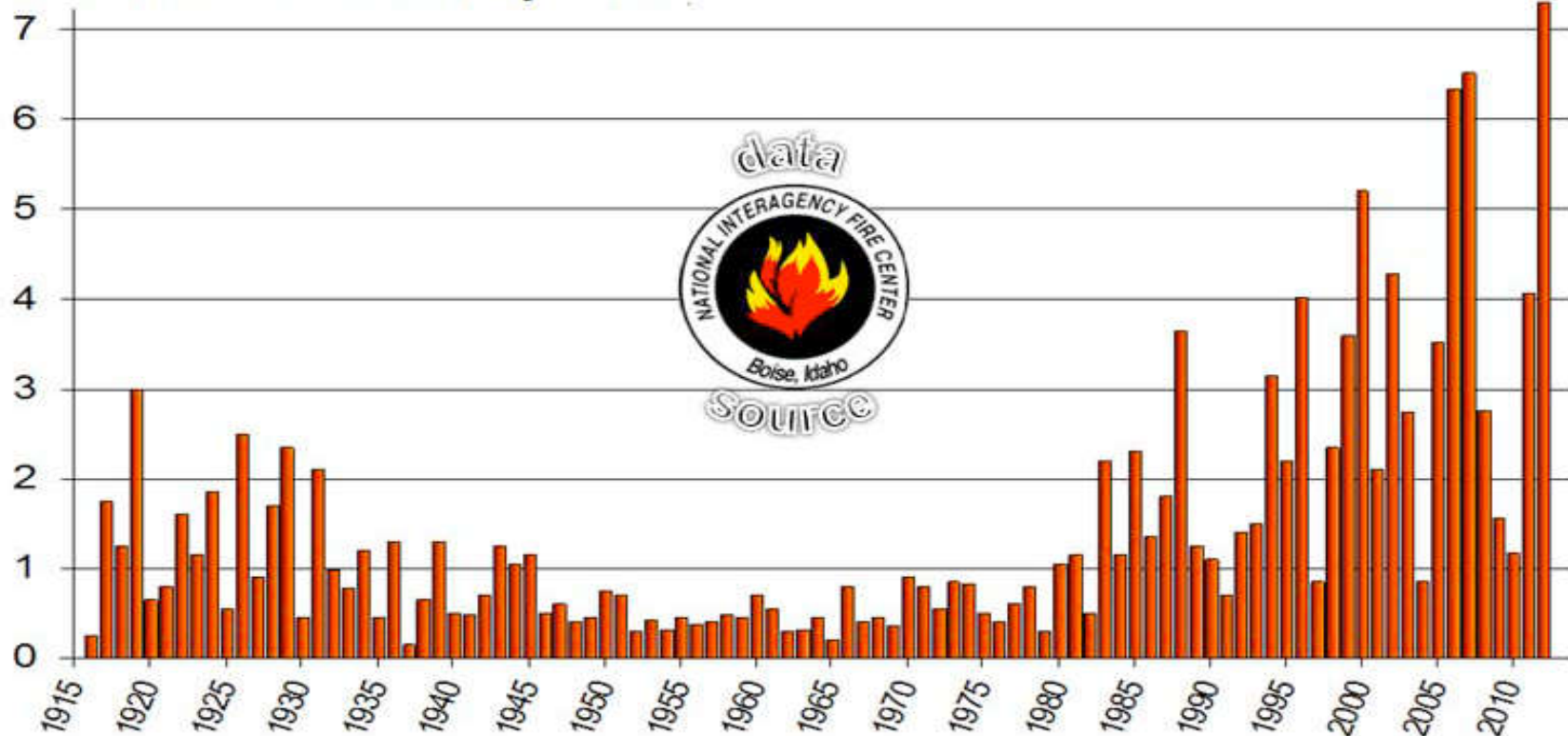
Decreased Logging = Increased Wildfire



WCKE2 BOKMED

Wildfires in 11 western states,* 1916-2012

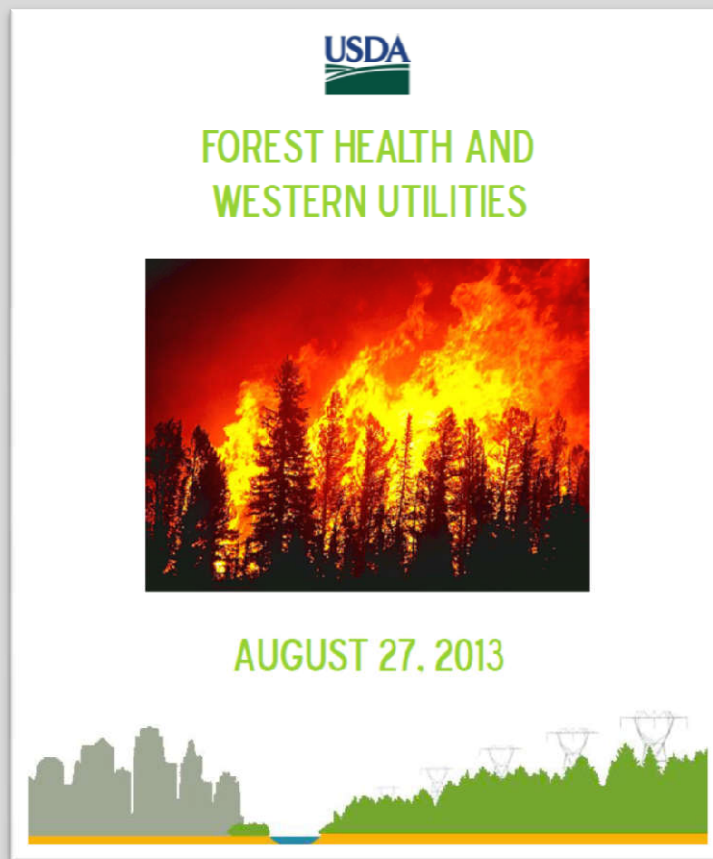
Millions of acres burned by wildfire



*11 states: AZ, CA, CO, ID, MT, NM, NV, OR, UT, WA, WY

University of Idaho
College of Natural Resources

TRANSMISSION LINES at RISK



10,000 miles of major electrical transmission lines at risk on national forests in Western U.S.

-- USFS Risk & Reliability Report
Aug 2013

WORSENING TRENDS



“The forest service does not have the budget to treat the affected acres.”

“Fires are becoming larger and more severe.”

“Trends indicate the amount of wildfire and associated damage will increase beyond our recent experiences.”



-- USFS Risk & Reliability Report
Aug 2013

DEVASTATING IMPACTS

Set Weather ▾

OREGONLIVE
The Oregonian

Wildfire devastation: First fire, then floods in besieged Western forests



In this May 10, photo provided by the U.S. Forest Service, a forest left scorched by the High Park Fire is covered in a layer of highly-absorbent agricultural straw used to mitigate erosion and flooding, a process known as helimulching, near Fort Collins, Colo. In Colorado, multiple flash floods have struck this summer in or near scars left by last year's wildfires. The U.S. Forest Service spent nearly \$46 million nationwide in fiscal 2012 on emergency erosion measures. The money paid for much to absorb rain, shoring up roads and trails, and reseeded. (The Associated Press)

— The Associated Press

Print



Severe erosion

Stream sedimentation





WATER POLLUTION

This photo was taken July 1, 2004 from the Blankenship Bridge looking north at the confluence of the North fork and the Middle fork, Flathead River. North fork on the left was running very muddy after a severe thunderstorm event the previous day that hit Roberts, Wedge and Moose Fire burn areas

HOMES. LIVES DESTROYED



A helicopter preparing to drop water is dwarfed by a billowing cloud of smoke from a wildfire Friday, July 18, 2014, in Twisp, Wash. A fire racing through rural north-central Washington destroyed about 100 homes.

Courtney Flatt, July , 21, 2014



Property Damage

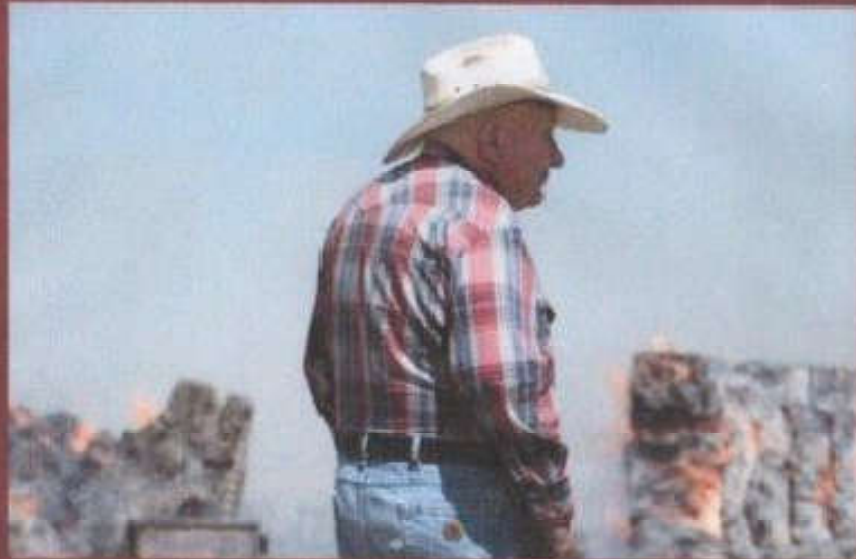










Photo by
A fire storm ripped through Beehive, Mont., so fierce even the wildlife could not get away. This mule deer buck was laying in an open field just on the edge of the forest. (DAVID GRUBBS/Gazette Staff)

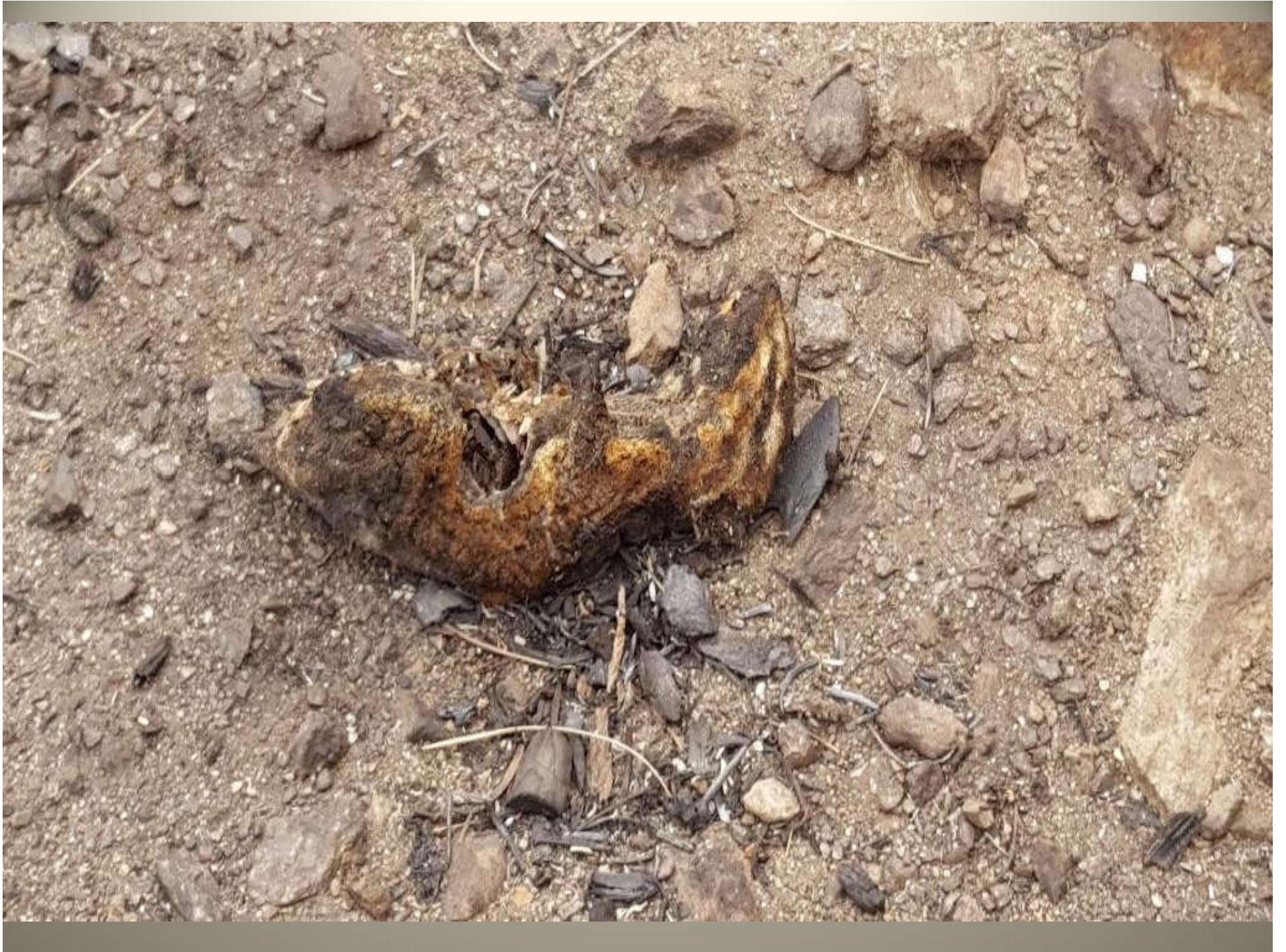






Photo by

A wild turkey could out run or fly the Derby fire as it swept through Beehive, Mont. (DAVID GRUBBS/Gazette Staff)








**No Vegetation Management =
DIRTY AIR,**

FIRE IMPACT ESTIMATE (1 decade)
120 million wild animals killed, ? Starved
4 billion pounds toxic pollution emitted

**ELEVEN WESTERN STATES WILDFIRE, PRESCRIPTIVE AND FIRE USE HISTORY
 2002-2012**

Totals for All Acres Burned			
Type of Burn	Acres Burned	Animals Burned	Pollution Spewed (in pounds)
Mildfire	34,106,178	102,318,534	3,410,617,800
Prescriptive Burns	5,516,085	16,548,255	551,608,500
Fire Use	1,335,804	4,007,412	133,580,400
Totals	40,958,067	122,874,201	4,095,806,700



Downtown Livingston

A hazy, sepia-toned photograph of a cityscape. The sky is a uniform, light brownish-tan color, with a bright, circular sun or light source positioned in the upper center. The city below is mostly obscured by a thick layer of haze, with some darker, indistinct shapes visible in the lower portion of the frame. The overall tone is muted and atmospheric.

Downtown Butte



MISSOULA



Downtown Missoula



Downtown

Billings MT 2017

**Over half the population of
Montana was subject to
deadly cancer causing
carcinogens during the fires of
2017**



Wildland Firefighter Smoke Exposure
**United States Department
of Agriculture Forest**

Wildland firefighters are subject to exposure from a variety of inhalation irritants ranging from carbon monoxide, aldehydes, particulate matter, crystalline silica, and polycyclic aromatic hydrocarbons.

Some of the compounds in wildland fire smoke are **confirmed carcinogens** (benzene, formaldehyde, and certain polynuclear aromatic hydrocarbons (PAH)) or suspected carcinogens.

Health effects may include short-term conditions, such as headaches, fatigue, nausea, and respiratory distress while **long-term health effects may include an increased risk of cardiovascular disease.**

carcinogens do not have toxicity thresholds because they pose a potential risk regardless of the exposure level.





Exposure to carcinogens is evaluated by assessing the **level of cancer risk** posed by the exposure

Montana Department of Environmental Quality website

Health Effects Categories

Health Effects

Cautionary Statements

	<p>Hazardous</p>	<p>Serious aggravation of heart or lung disease and premature mortality in persons with cardiopulmonary disease and the elderly; serious risk of respiratory effects in the general population.</p>	<p>Everyone should avoid any outdoor exertion; people with respiratory or heart disease, the elderly, and children should remain indoors.</p>
	<p>Very Unhealthy</p>	<p>Significant aggravation of heart or lung disease and premature mortality in persons with cardiopulmonary disease and the elderly; significant risk of respiratory effects in the general population.</p>	<p>People with respiratory or heart disease, the elderly, and children should avoid any outdoor activity; everyone else should avoid prolonged exertion.</p>
	<p>Unhealthy</p>	<p>Increased aggravation of heart or lung disease and premature mortality in persons with cardiopulmonary disease and the elderly; increased respiratory effects in the general population.</p>	<p>People with respiratory or heart disease, the elderly, and children should avoid prolonged exertion; everyone else should limit prolonged exertion.</p>
	<p>Unhealthy for Sensitive Groups</p>	<p>Increasing likelihood of respiratory symptoms in sensitive individuals, aggravation of heart or lung disease and premature mortality in persons with cardiopulmonary disease and the elderly.</p>	<p>People with respiratory or heart disease, the elderly and children should limit prolonged exertion.</p>



Deadly toxins in OUR air and water

Vegetative Smoke Concerns

Carbon Monoxide Symptoms of CO exposure include headaches, dizziness, nausea, loss of mental acuity, and fatigue.

Sulfur Dioxide

Sulfur dioxide (SO₂) exposure causes severe irritation of the eyes, skin, upper respiratory tract, and mucous membranes, and also can cause bronchoconstriction.

Particulate Matter

Particulate matter is described by its mean aerodynamic diameter because the size of the particle determines how far it will travel through the human respiratory system. The smaller the size, the deeper it will penetrate the respiratory tract. Gases and liquids present in the smoke adhere to the particles and thus can enter the airway, lungs, and bloodstream. Respirable particulates are a major concern as they can be inhaled into the deeper recesses of the lungs, the alveolar region. These particles carry absorbed and condensed toxicants into the lungs.

Aldehydes (VOCs)

Aldehyde compounds can cause immediate irritation of the eyes, nose, and throat, and inhalation can cause inflammation of the lungs. Short-term effects include cough, shortness of breath, and chest pain (Reinhardt 1991; U.S. Department of Agriculture 1989). Some aldehydes are carcinogens. The most abundant aldehyde in smoke is formaldehyde. When formaldehyde enters the body, it is converted to formic acid, which also is toxic.

Acrolein

Another aldehyde present in smoke is acrolein, which may increase the possibility of respiratory infections (Reinhardt 1991; U.S. Department of Agriculture 1989). Acrolein exposure can cause irritation of the nose, throat, and lungs. Long-term effects can include chronic respiratory irritation and permanent loss of lung function if exposure occurs over many years (U.S. Department of Agriculture 1989).

Benzene

Benzene, when inhaled, can cause headaches, dizziness, nausea, confusion, and respiratory tract irritation. Although the human body can often recover and repair damage caused by irritants, prolonged exposure from extended work shifts and poorly ventilated fire camps can overwhelm the ability to repair damage to genes and deoxyribonucleic acid (DNA) (U.S. Department of Agriculture 1989).

Crystalline Silica

Prolonged and excessive exposure to crystalline silica in mining dust can cause silicosis, a noncancerous lung disease that affects lung function. Crystalline silica is the second most common element in the earth's crust and is found throughout many areas of the world. Crystalline silica is classified as a human carcinogen (Occupational Safety and Health Administration 2002b).

Intermediate Chemicals

As smoke interacts with the atmosphere, intermediate chemicals are formed, the majority of which are usually in the form of carbon, hydrogen, and oxygen free radicals (Leonard et al. 2000; Leonard et al. 2007). These free radicals have been shown to cause a variety of health problems including bronchopulmonary carcinogenesis, fibrogenesis, pulmonary injury, respiratory distress, chronic obstructive pulmonary disease (COPD), and inflammation (Leonard et al. 2007).

Mercury

Dr. Marsha Honn, PhD, writing for the Environmental Health Policy Institute, says increasing fire activity, whether due to **out-of-control wildfires or controlled burns**, is increasingly putting particulate matter into the atmosphere, and that matter is having **negative health effects**.

There are several harmful substances released through burning, but, she says, mercury is the worst.

"Scientists estimate that fires in the continental U.S. and Alaska release 44 metric tons of mercury into the atmosphere every year," she said, citing the 2007 study.

Montana Department of Environmental Quality website

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People with respiratory or heart disease, the elderly, and children should avoid prolonged exertion; everyone else should limit prolonged exertion.

Unhealthy for Sensitive Groups

Increasing likelihood of respiratory symptoms in sensitive individuals, aggravation of heart or lung disease and **premature mortality** in persons with cardiopulmonary disease and the elderly.

People with respiratory or heart disease, the elderly and children should limit prolonged exertion.



**With the fuel loads in our forests today.
Once It Gets Going,
There's No Stopping It...
Over 1 million acres burned in
Montana this year.**

AND WHAT ABOUT NEXT YEAR?



BURNED OUT...



**OR CARRIED OUT... YOU
CHOOSE!**



**WELL MANAGED LOGGING & GRAZING PREVENTS
DEVASTATING WILDFIRES, SAVES MONEY,
PRODUCES JOBS, & IMPROVES WILDLIFE HABITAT.**

**WELL MANAGED
LOGGING & GRAZING
MAKES PUBLIC LAND
HEALTHY, ACCESSIBLE,
FIRE RESILIENT AND
ECONOMICALLY
PRODUCTIVE.**



**For every \$1 spent on
vegetation management:
\$17 can be saved on wildfire
suppression costs;
\$500 can be saved in total losses.**

**– Mowery & Gray,
The Total Cost of Wildfires. 2013**

WHO BETTER THAN THE LOCAL GARDENER





**Who Cares More Than The People
Who Live Here?**