

# HEADWATERS ECONOMICS RESEARCH UPDATE

August 2009

[www.headwaterseconomics.org](http://www.headwaterseconomics.org)



HEADWATERS  
ECONOMICS

## **Wildland Fire: Climate Change and Housing Growth Could Double the Cost of Protecting Homes from Wildfires**

The price of fighting forest fires has been increasing substantially, now accounting for half of the Forest Service's budget and costing taxpayers billions every year. Unfortunately, the combination of continued development in the wildland urban interface and increasing temperatures means the cost of protecting homes from wildfires could more than double in the next 15 years.

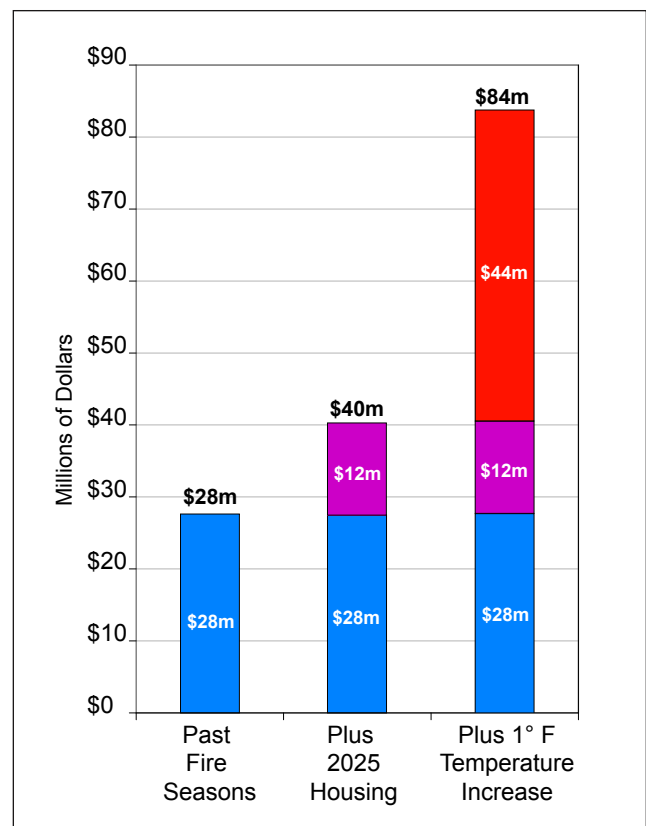
Across the West today, only 14 percent of forested private lands near fire-prone public lands has homes on it. Protecting this relatively small percentage is tremendously expensive, costing state and federal governments more than \$1 billion a year. If 50 percent of these forested private lands were developed, fire fighting could cost the taxpayer more than \$4 billion annually.

Using Montana as a case study, Headwaters Economics found that protecting the average home from a wildfire event costs roughly \$8,000. Statewide, protecting homes from forest fires costs an average of \$28 million annually. If development on private land near fire-prone forests continues, costs associated with home protection likely will rise to \$40 million by 2025.

Climate change would increase costs even further. A one-degree increase in average summer temperatures in Montana would at least double home protection costs, and the combination of additional development and hotter summers could push the average annual cost of protecting homes from forest fires to exceed \$80 million by 2025.

That's a large bill for a state with less than a million people. Other states already are seeing much larger bills. In 2008, fire suppression costs in California alone were more than \$1 billion. *(Continued, over)*

**Yearly Cost of Protecting Homes  
from Wildfires in Montana**



[www.headwaterseconomics.org/wildfire.php](http://www.headwaterseconomics.org/wildfire.php)

(Continued from front page)

The current approach to fire suppression has perverse incentives and lacks accountability. People who develop in forested areas, and local governments that allow such new subdivisions, do not pay their share of fire fighting costs. The majority of fire fighting expenses instead are paid by the Forest Service, BLM, and the Federal Emergency Management Agency. In other words, the national taxpayer pays the tab.

Some communities are adopting Firewise protections such as defensible space and better building materials. This important step improves safety for homes on the 14 percent of already developed land near forests. Firewise, however, could unintentionally encourage sprawl on the remaining 86 percent of land near public forests, if it sends the message that it is safe to build on fire-prone landscapes.

### **Solutions: Eight Steps to Help Control Wildfire Costs**

The current policy for paying fire fighting costs is not sustainable. Headwaters Economics, in partnering with others, is developing ideas to help control future costs:

- Publicize maps identifying high-risk wildfire areas
- Educate policy makers and the public about the financial consequences of building in fire-prone areas
- Redirect federal aid to encourage land use planning on private lands
- Provide incentives for counties to sign fire fighting cost-share agreements
- Purchase land or obtain easements on fire-prone lands
- Institute a national fire insurance and mortgage program to require home fire fighting insurance
- Allow insurance companies to charge higher premiums in fire-prone areas
- Limit development near fire risk lands through planning or local zoning

## **New Economic Profile System Tools to Help Communities**

Several new tools soon will be available within EPS to provide detailed information on specific economic sectors. These tools, previously unavailable to decision-makers, will significantly improve understanding of how and why different sectors of the economy are changing.

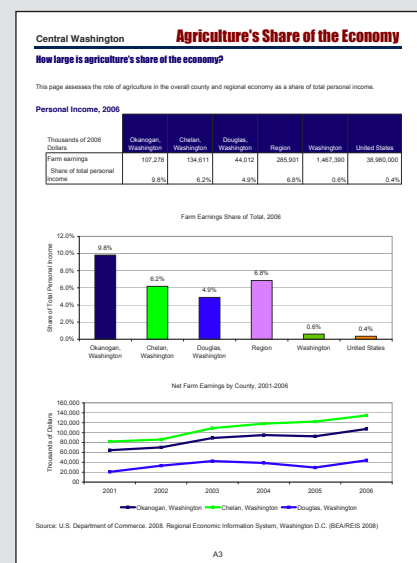
The new tools include resources on:

- Timber and Wood Products
- Mining and Energy Development
- Travel and Tourism
- Agriculture

EPS continues to be a free, easy-to-use system that produces detailed county and community socioeconomic profiles. All EPS tools can be found at [www.headwaterseconomics.org/eps](http://www.headwaterseconomics.org/eps).

Additional tools on Government, Services, Non-Labor Income (retirement and investments), Environmental Justice, and others also will be available soon.

### **Example EPS Page**



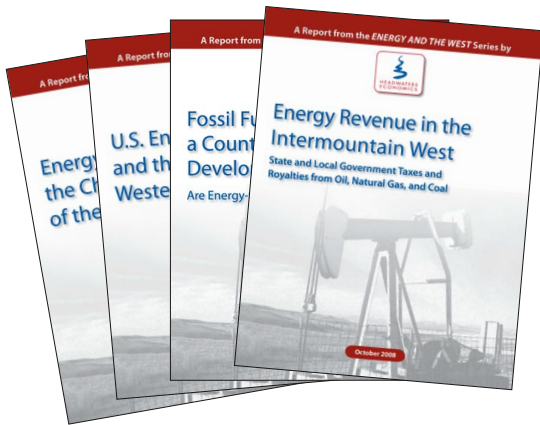
[www.headwaterseconomics.org/eps](http://www.headwaterseconomics.org/eps)

## **Energy and the West Series: Making Informed Choices About Energy Development**

Headwaters Economics continues to analyze the impact of energy development on western states, counties, and communities. The *Energy and the West* reports, an eight part series, were completed earlier this year.

### **West-Wide Studies**

The series starts with four West-wide studies that examine: energy's role in the region's economy, whether public lands can meet U.S. energy needs, energy development as an economic growth strategy, and energy's fiscal implications.



[www.headwaterseconomics.org/energy](http://www.headwaterseconomics.org/energy)

### **State and County Studies**

The final four reports explore state and county implications of ongoing or proposed energy development in four states: Colorado, Montana, Wyoming, and New Mexico.



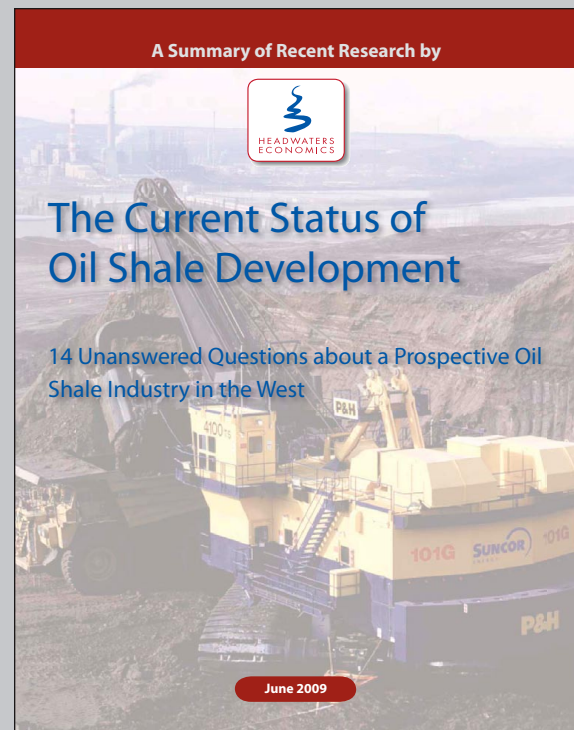
[www.headwaterseconomics.org/energy](http://www.headwaterseconomics.org/energy)

## **Ongoing Energy Work at Headwaters Economics**

[www.headwaterseconomics.org](http://www.headwaterseconomics.org)

### **Oil Shale: 14 Unanswered Questions**

Potential oil shale development would bring benefits, but also significant challenges to the West, especially in the Green River Basin of Colorado, Utah, and Wyoming. This new report summarizes recent research and policy issues, and then outlines questions such as scale, technology, water demands, and carbon emissions that must be answered to gauge the viability and desirability of commercial oil shale production.



[www.headwaterseconomics.org/energy](http://www.headwaterseconomics.org/energy)

### **Renewable Energy**

Headwaters Economics also is conducting research into the impacts of renewable energy, especially at the county level across the West to help the public and local officials make better and more informed decisions about energy development.

## **Economic Resiliency:**

### **How Western Counties Are Performing**

In the current recession, not all counties are performing equally. The map at right measures the combination of unemployment at the start of the recession and the change in unemployment during the past year.

Two variables that do the best job of explaining higher levels of economic stress (red in map) are a dependence on manufacturing, especially lumber and wood products, and low levels of college education.

For detailed socioeconomic information on specific counties, go to:

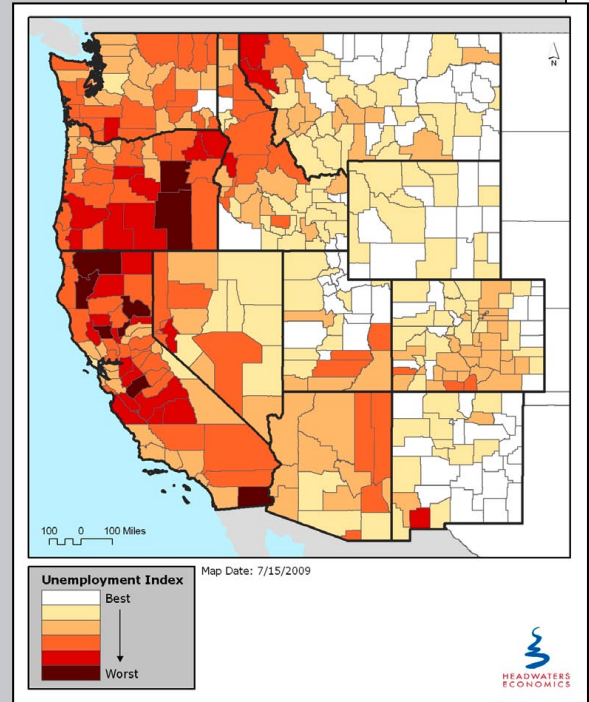
[www.headwaterseconomics.org/eps](http://www.headwaterseconomics.org/eps).

For a useful economic opportunities tool based on access to major markets, go to:

[www.headwaterseconomics.org/3wests.php](http://www.headwaterseconomics.org/3wests.php).

Headwaters Economics will publish detailed research on economic resiliency in the West later this year.

*Unemployment Index by County*



## **MISSION STATEMENT**

Headwaters Economics is an independent, non-profit research group. Our mission is to improve community development and land management decisions in the West.

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