

Forests Clean Our Air

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Oregon's forests absorb up to 50% of the state's greenhouse gas emissions.¹ Washington's forests absorb up to 27%.²

Increased management of federal forestlands offers great potential to further significantly reduce greenhouse gases by absorbing carbon dioxide, producing oxygen, reducing wildfire risk and providing a source of biomass to produce clean energy.

Sequestration is the natural absorption and storage of carbon in trees as they grow. Trees absorb CO₂ and store the carbon in their trunks, branches and roots, and then release the oxygen back into the atmosphere. Even after harvest, durable wood products continue to store carbon for many years.³

Well-managed forests—the continuous cycle of planting, thinning, harvesting and replanting trees—benefit the environment.^{4,5}

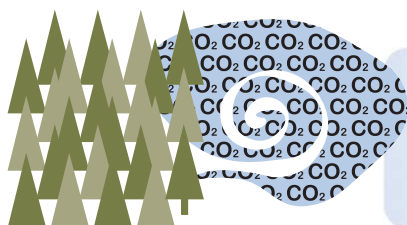
A variety of management approaches and forest age-classes produces multiple benefits, including a diverse wildlife habitat.

Managed forests are healthy forests and, in turn, are more efficient at cleaning the air through:

- ▶ **Reduction of wildfire risk**, a significant source of carbon dioxide.⁶
- ▶ **Faster and greater production of oxygen** and removal of carbon dioxide from our atmosphere.⁵
- ▶ **Creation of environmentally friendly** building materials, which lock away carbon for years.⁷

According to the U.S. Environmental Protection Agency, managed forests in the United States absorb about 17 percent of total annual greenhouse gas emissions—equal to the carbon dioxide from 235 million automobiles annually.

(Source: California Forest Foundation)



A growing forest absorbs and stores about two to six tons of carbon per acre per year for the first 15-75 years of life. After that, the absorption rate declines and older trees ultimately become carbon emitters.⁵

1 acre = approximately 2 tons of carbon storage per year⁴

(Depending on stand age, health and site quality)

works cited

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- 3 Skog, Kenneth E. and Geraldine A. Nicholson, "Carbon Sequestration in Wood and Paper Products," in the *Impact of Climate Change on America's Forests: A Technical Document Supporting the 2000 USDA Forest Service RPA Assessment, General Technical Report RMRS-GTR-59*, Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station, 2000.
- 4 James, Cajun; Krumland, Bruce; and Eckert, Penelope. March 2008. "Carbon Sequestration in Californian Forests; Two Case Studies in Managed Watersheds."
- 5 CH2M Hill, Climate Project: Carbon Sequestration and Storage by California Forests and Forest Products, August 2007.
- 6 Finney, Mark. 2001. "Design of Regular Landscape Fuel Treatment Patterns for Modifying Fire Growth and Behavior."
- 7 Sierra Pacific Industries, http://www.spi-ind.com/html/environment_green.cfm (as of 7/30/2008).

