



High-Carbon Forests Work for the Economy and Ecology

This high-carbon forest in the Puget Trough ecoregion is sustainably managed to support the timber economy while safeguarding habitat for species including Chinook salmon, northern red-legged frogs, black-tailed deer, and bald eagles.

Why Do Forests Matter?

Protecting forests is vital to addressing climate change. Trees grow by “breathing in” carbon dioxide, the most prevalent climate change-inducing gas, then release oxygen through photosynthesis. In the United States, forests store the equivalent of 30 years’ worth of the nation’s emissions, and each year they sequester another 15 percent of U.S. carbon dioxide emissions.

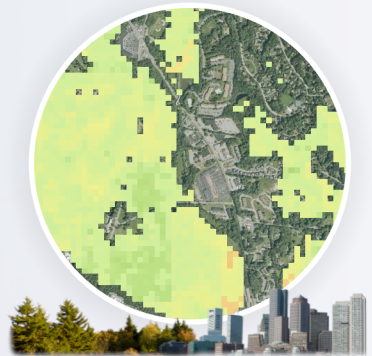
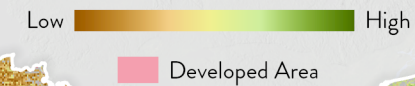


Low-Carbon Forests Matter Too!

While the rocky, thin soils and forests in the Middle Rockies ecoregion do not store significant amounts of carbon, they still play a critical role in providing wildlife habitat, offering outdoor recreation opportunities, and supporting economic activity.

2020 Forest Carbon Storage

Metric Tons of Carbon Dioxide Equivalent per Acre (MTCO₂e/Acre)



Extensive Eastern Forests

The eastern United States contains the largest contiguous forests in the nation, but these forests are highly threatened by development and activities like mining. When forests are removed, much of the carbon is released back into the atmosphere, and potential for future sequestration is lost.

Potential Carbon Sequestration from 2020 to 2050



Sequestration in the Southeast

While some forests currently have lower levels of carbon storage, they have high sequestration potential. The U.S. southern coastal plain forests are part of the “wood basket” for the nation. Trees in this region are harvested regularly but also grow back quickly, as shown by the high sequestration potential. Some of the forest carbon is stored in long-lived wood products like furniture.



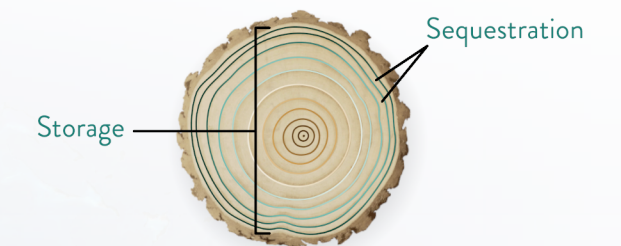
SCAN TO VIEW

National Forest Carbon Data

Along with a 36" x 24" version of this map, suitable for printing.

openspaceinstitute.org/research/forest-carbon-resources

Carbon Sequestration and Storage



A tree’s cross section is a perfect illustration of its carbon value! The width of each ring represents the rate of carbon sequestration for one year, and all the rings together represent the tree’s full carbon storage.

Carbon sequestration is the process of capturing carbon from the atmosphere as trees grow.
Forest carbon storage is the total amount of carbon stored in trees, roots, soil, leaf litter, and dead wood.