



News Release

Study examines urban tree benefits in southeastern Idaho

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(Idaho Falls) - **Trees in several southeastern Idaho cities provide \$900,000 in ecosystem benefits**, as indicated by a recently completed tree canopy inventory.



Urban tree setting in Idaho Falls. Street and parking lot trees provide shade to cool asphalt.

The study area included the cities of **Idaho Falls, Pocatello, Chubbuck, Ammon, Iona**, and the adjacent areas within urban growth boundaries. It covered **77 square miles with a population of 140,000** people.

The Idaho Department of Lands (IDL) initiated the study. The tree canopy inventory will inform phase two of the assessment, a geospatial analysis, which **will aid in strategic planning of where to plant more trees to improve air and water quality in the area.**

"We all know trees provide many aesthetic benefits, but this analysis quantifies the value of these resources to improved human health and environmental quality," Dave Stephenson, IDL Urban and Community Forestry Program Manager, said.



The Snake River runs through the heart of Idaho Falls' urban forest. Trees along the river help stabilize the riverbank and filter runoff.

So far, the study indicates **there are about 250,000 trees shading 7.6 percent of this area, with a replacement value exceeding \$450 million.**

The most common species are Utah juniper (22.4 percent), Siberian elm (10 percent) and blue spruce (8.5 percent). Other species rounding out the top ten are hybrid balsam poplar, fruit trees, green ash, and quaking aspen. Forty percent of the trees are native to Idaho.

Air pollution negatively impacts human health, costing residents more in health care and in missed work and school days. The trees in the greater Pocatello and Idaho Falls areas remove 59 tons of air pollutants each year, reducing annual medical costs and lost productivity valued at \$441,000 annually. A reduction in particulates and ozone are the greatest air quality benefits. Area trees also store more than 70,000 tons (\$5.2 million) worth of carbon in their trunks, branches and roots, and remove an additional 1,470 tons (\$105,000) of atmospheric carbon each year while providing nearly 2,000 tons of oxygen.

To protect water quality, federal stormwater rules require more stormwater be captured on site. Trees and green stormwater infrastructure are effective tools to do this, and the trees in these cities are already reducing runoff by 2.2 million cubic feet a year, a savings of \$148,000 annually. Future increases in tree canopy adjacent to impervious surfaces can dramatically increase this benefit.

The energy saved by trees shading homes in the summer and blocking winter winds is also significant. In this area, trees save residents about \$28,000 in heating costs and \$167,000 in cooling costs for an overall savings of nearly \$200,000 per year. Additionally, because less energy is used, less is produced at power plants, and this reduces the carbon they would otherwise put into the air; an additional savings of about \$9,000 per year.

The study showed the total annual benefit from all these ecosystem services is approximately \$900,000.

The next phase of the assessment is a geospatial analysis, which will provide additional data useful for strategic planning on how to best utilize available resources to maximize the growth, function and value of urban tree canopy.

A similar study completed in Idaho's Treasure Valley spurred creation of the [Treasure Valley Canopy Network](#), a group of professionals from a variety of disciplines working collaboratively to help address critical urban issues with tree canopy.

Grant funds from the USDA Forest Service and IDL, along with partner contributions, are funding the project.

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