



761 Newport Street • Denver, Colorado • 80220-5554  
T: 303 388 5211 • F: 303 388 3209 • [www.InstituteForEnvironmentalSolutions.org](http://www.InstituteForEnvironmentalSolutions.org)

## NEWS RELEASE

FOR IMMEDIATE RELEASE

May 5, 2008

### **Tree Study Projects Greener, Cleaner Front Range**

(Denver, Colorado) - The Institute for Environmental Solutions (IES) today issued its Tree Project Phase 2 Report signaling completion of a comprehensive scientific study of the environmental benefits of trees in the City of Golden.

“The goal of the Tree Project is to determine how trees can enhance energy and water conservation, mitigate climate change and improve air quality throughout urban areas of Colorado’s Front Range,” says Carol Lyons, IES Executive Director. “Issuing this report represents a significant step toward enabling better decisions by developers, urban planners, and homeowners about using trees to deliver the most environmental benefit for the least cost.”

The study showed that Golden’s trees are storing the same amount of carbon emitted by 10,800 cars; each year the trees sequester another 637 metric tons of carbon dioxide and 25 metric tons of air pollution, valued at \$14,500 and \$139,000 respectively. Trees can have both positive and negative effects on the environment; if not properly selected, planted and maintained, trees can increase air pollution and water consumption.

The Phase 2 work was a collaboration between IES and the City of Golden to quantify all of the environmental costs and benefits of trees on city property. Rod Tarullo, Director of the Parks and Recreation Department for the City of Golden, said that “IES’s work measured the environmental value our city’s trees provide. Now we can effectively improve our urban environment with the best selection and planting of more trees.”

Early in Phase 2, a project stakeholder group was convened by IES to guide the work. “We know from experience that lasting solutions to environmental problems are only possible if a broad range of stakeholders are involved from the very beginning,” said Robert E. Brady, Jr., IES Board President and former Chair of the Colorado Air Quality Control Commission. “Through our stakeholder engagement, we gained valuable insight from foresters, urban planners, developers, government agencies, environmentalists, and others into how the project should be pursued.”

Working with city staff, IES consulted with experts and academics in their respective fields, such as the National Renewable Energy Laboratory and the Colorado State Forest Service, to design experimental studies examining the impact of trees on water and energy consumption and conservation.

Staff and volunteers then collected field data on trees, soil moisture, sunlight, buildings and weather for the analysis. Computer models were used to quantify environmental benefits, including i-Tree, ArcMap, DesignBuilder and EnergyPlus (a program of the Department of Energy and the NREL), SAS, SPSS and Excel. Based on study findings, IES is developing a Model Municipal Environmental Tree Guidelines and a Strategic Plan of tree planting for city officials to use in future urban planning projects.

The project's next phase consists of developing public information materials and conducting outreach to property owners and residents to encourage tree selection, planting, and maintenance optimal for the Front Range environment.

Formally titled "Integrated Urban Environmental Improvement through Tree Selection and Management," the Tree Project was conceived in 2004 in response to concern about the impacts of burgeoning Front Range communities on the environment and the need for integrated approaches to solving environmental problems.

The state's economy has limited resources to implement solutions to regional environmental problems. In recognition of this reality, many municipalities have expressed a desire to optimize environmental benefits from urban forests.

IES' Phase 2 work was funded through grants from the City of Golden, the Xcel Energy Foundation, the Boulder Department of Water Conservation, Colorado Department of Public Health and Environment, Brownstein Hyatt & Farber, SmartWool Advocacy Fund, and the Considine Family Foundation.

The Institute for Environmental Solutions is a Denver-based non-profit organization dedicated to addressing complex environmental challenges. IES uses sound, independent science to find potential solutions, develop objective evaluation methods, implement strategies, and measure and demonstrate costs and effectiveness. IES's approach emphasizes integration across technical disciplines and inclusion of all potential stakeholders throughout project design and implementation.

The full text of the Tree Project Phase 2 Report is available by visiting [www.instituteforenvironmentalsolutions.org/treeproject.html](http://www.instituteforenvironmentalsolutions.org/treeproject.html)

Please visit [www.InstituteforEnvironmentalSolutions.org](http://www.InstituteforEnvironmentalSolutions.org) for more information, or contact:

For further information, contact: Jack Hoopes (303) 249-9103

###