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NEWS RELEASE

USDA Forest Service

FOR IMMEDIATE RELEASE
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Trees in Bismarck are a Wise Investment

Bismarck, ND, December 6, 2004 – In addition to the nine Sperling-Stress-Index factors, it is quite possible that community trees had something to do with Bismarck, the “jewel of North Dakota”, being rated as the least stressful city in America, according to a recent study by the USDA Forest Service. Bismarck is home to over 17,800 municipal street trees, and as Dr. Greg McPherson, Director for the Center for Urban Forest Research, points out, “We know that trees reduce stress, but we haven’t been able to place a value on it yet. However, because of the thousands of trees that have been planted and cared for since Bismarck’s founding in 1873, the city now enjoys many other benefits in addition to reduced stress, which we have been able to quantify. Our recent study of Bismarck’s 17,821 street trees clearly shows that they provide nearly \$1 million in benefits to the community. If we could add in a dollar value for stress reduction that number would be considerably higher.”

The Center’s study found that street trees are definitely a wise investment for the City of Bismarck, providing \$979,000 in annual benefits and only costing the city slightly more than \$300,000 per year. Bismarck’s harsh winter climate poses a constant threat to

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the health and safety of the city's public trees and the thousands more private trees. "The city's continued investment in the care and management of its trees is critical to ensuring that the community maintains or increases its return on investment into the future", says Dr. McPherson.

Last month the Center completed its analysis of Bismarck's municipal tree resource to see if the benefits that the public trees produce really justify the annual expenditures. According to Dr. McPherson, "The citizens of Bismarck can rest assured that their trees are vastly improving their quality of life and that the money they are spending annually is a wise investment of municipal dollars. We found that for every dollar spent on Bismarck's public trees the residents receive \$3.09 worth of benefits. These benefits include enhanced control of stormwater runoff, energy savings for heating and cooling homes, improved health through better air quality, and higher property values."

The report points out that because of Bismarck's relatively high cost of managing stormwater runoff the dollar value of the retainment benefit provided by Bismarck trees is quite high. The street trees intercept over 950,000 cubic feet of rain every year, thereby avoiding the engineering costs associated with retaining this runoff. The avoided engineering costs have a value of almost \$500,000 per year. These same trees moderate Bismarck's cold winter climate. Annual energy savings from trees are higher than those that would be found in more moderate climates, and amount to about \$84,000 (\$4.73/tree) per year. Additionally, the trees remove 952 tons of the greenhouse gas carbon dioxide, offset another 886 tons through reductions in power plant emissions, and intercept 2.2 tons of particulates and other pollutants. This cleaner air is valued at

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over \$30,000 per year. “One benefit residents can actually feel in the pocketbook is the increase in property value,” said Dr. McPherson. “This benefit to Bismarck residents amounts to nearly \$370,000 per year. The sales price of a home increases by about 1% for every mature tree. Cut back on the care and maintenance of City trees and residents will ultimately experience a pinch in their wallets.”

The street trees in Bismarck are a very valuable asset, providing just over \$979,000 (\$55/tree) in total annual benefits to the community. The city spends about \$18/tree on their care. “Now is not the time to question the expenditure of funds for your Urban Forest program,” says Dr. McPherson. “In fact, it is time to celebrate what has been accomplished in this city and embrace the benefits these trees are providing. This urban forest is quite a tribute to the Bismarck Forestry Department (BFD) and they should be commended for their ability to manage this asset. They are faced with a fragile resource that needs constant care to maximize and sustain these benefits through the foreseeable future. In a city where the climate poses a constant challenge to tree growth and health, this is no easy task. The challenge will be to maximize net benefits from available growing space over the long-term, providing a resource that is both functional and sustainable.”

Bismarck has an active tree management program that promotes tree planting and stewardship throughout the community. It has received Tree City USA recognition annually since 1978. The Department is responsible for the management and maintenance of all street trees and all other woody vegetation on all public properties. Although tree maintenance on street right-of-way (ROW) is conducted on a rotation by BFD and contract crews, adjacent property owners may apply for permission to prune

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and remove trees between rotation cycles. Additionally, the Department provides education programs and other information for citizens, conducts tree inspections on residential lots, licenses and regulates commercial arborists within the city, and provides planning and planting advice for new tree installations. The BFD also provides citizens with information on Bismarck trees, tree care, ordinances, and current issues affecting the urban forest on a website (http://www.bismarck.org/city_departments/department/default.asp?dID=12).

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