



Date: 31 July 2008

To: California Air Resources Board

From: Greg McPherson, US Forest Service, Center for Urban Forest Research

Subject: Comments on AB32 Scoping Plan Document

We are disappointed to see that urban forestry merits only one sentence in the main scoping plan document and only a half page in the appendices. Furthermore, the potential contribution of urban forestry projects has not been quantified.

The Center for Urban Forest Research has worked to estimate the potential contribution of urban trees to achieving the goals of AB32. We believe new urban tree planting projects could sequester approximately 4.5 Mt of CO₂ annually and that strategic planting to reduce energy use could reduce emissions by an additional 1.8 Mt/year. **The total contribution of new urban tree projects could total 6.3 Mt/year or about 4% of the state target.**

To derive these values, we began by using remote-sensing data to determine the number of potential urban planting spaces for trees in California. We found nearly 250 million empty places for trees (McPherson and Simpson 2003). We based our calculations of potential benefits on a conservative planting of 20% of the possible total or 50 million trees. After 15 years, 50 million trees would sequester approximately 4.5 Mt each year.

Urban trees have an additional benefit that forest trees can not offer—if planted strategically, they can reduce energy use for air conditioning and heating. In the extreme climates that much of California experiences, this benefit can equal or even exceed the GHG benefits of sequestration. If the 50 million trees were planted to shade west or east sides of residences, the predicted savings in energy use are 6,408 GWh/year. Using typical emission coefficients for electric power generation in California (EIA 2002), we estimated that emissions would be reduced by an additional 1.8 Mt/year.

This reduction of 6.3 Mt/year is of a similar magnitude to many of the other measures that are included in the scoping plan, such as improved energy efficiency (4.3 Mt), vehicle efficiency (4.8 Mt), and water efficiency (4.8 Mt). It is far greater than other measures such as million solar roofs (2.1 Mt) and methane capture at dairies (1 Mt). Moreover, the cost for implementing such a program is expected to range from \$75-100/t, assuming all GHG reductions follow the current CCAR reporting protocol. **For these reasons, we believe that urban forestry should play a prominent role in the scoping plan. In turn, this recognition will support tree planting and stewardship programs and the many benefits that will result.**

