Book details wood-to-energy viability in the South

By Lisa Gibson | March 08, 2011

The USDA Forest Service's Southern Research Station in Florida released a book about the wood-to-energy potential in wildland-urban interface areas of the Southern U.S.

The Southern United States is a prime location for producing woody biomass because of an already abundant wood supply, the proximity of forests to expanding urban areas and relatively low production costs, according to the newest publication released by the USDA Forest Service's Southern Research Station in Florida.

Written and edited with the help of the University of Florida, "Wood to Energy: Using Southern Interface Fuels for Bioenergy" gives the latest information on the viability of the wood-to-energy market in wildland-urban (WUI) interface areas of the South. The Southern U.S. produces nearly 60 percent of the country's wood and that figure is likely to grow, according to Christie Staudhammer, the book's lead author and assistant professor of forest biometrics at the University of Florida. As urban areas spread, large areas of forestland are increasingly influenced by humans and surrounded by or intermixed with urban development.

"The objectives of this document are to increase awareness of potential uses for biomass in [WUI] areas and to disseminate knowledge about putting bioenergy production systems in place, while addressing issues unique to WUI areas," Staudhammer wrote. "The South's WUI areas are expanding in population, making them well-positioned to take advantage of emerging bioenergy production efforts."

The book addresses a number of topics pertinent to the South's WUI areas including woody biomass sources; harvesting, reprocessing and delivery of woody biomass; conversion to energy and fuels; economic availability of woody biomass; economic impacts of woody biomass energy development; and public perceptions of using wood for fuel.

A number of studies cite public perception as playing an important role in the success or failure of proposed biomass energy projects, according to the book. "Projects can stall, funds can be denied, and lawsuits can spell doom if the public does not support an initiative," it says. "With public support, however, projects can move forward in a spirit of cooperation and exploration." The level of support for a woody biomass facility can be difficult to predict, it adds, but characteristics that affect proposals can be divided into three categories: perceptions of biomass in general; perceptions of forest sustainability; and perceptions of risk.

While the quality of the wood varies with location and the availability is difficult to assess, WUI areas in the South represent a significant opportunity for bioenergy, according to the book. "This document seeks to remove a key barrier to using woody biomass for energy production by providing information that can help potential wood energy users prepare to bring this novel energy system to their communities," it says.