

# **Oklahoma Insect and Disease Risk-Reduction Project**

## ***Southeast Oklahoma Landscape Treatment Area – Le Flore and McCurtain Counties***

*Oklahoma Forestry Services of the Department of Agriculture, Food, and Forestry*  
*Choctaw, Kiamichi and Tiak Ranger Districts of the Ouachita National Forest*

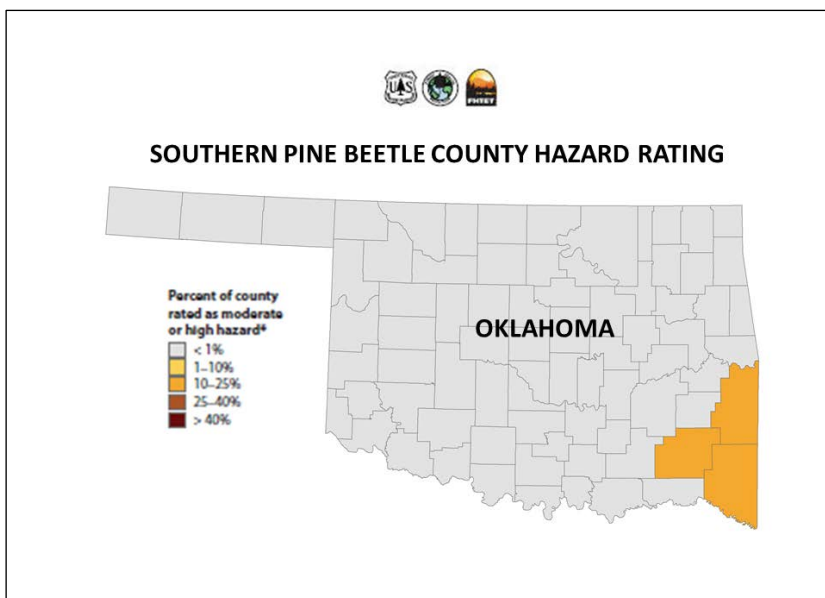
**April 4, 2014**

Section 8204 of the Agricultural Act of 2014 amended the Healthy Forests Restoration Act of 2003 by adding Section 602 and 603. Section 602 allows the Governor of the State to request the designation of insect and disease treatment areas by the Secretary of Agriculture. This responsibility was subsequently delegated to the Chief of the USDA Forest Service by the Secretary.

The Governor of the State of Oklahoma, in cooperation with the Ouachita National Forest, have identified a large area in southeastern Oklahoma that is currently showing signs of declining forest health and is at risk of experiencing substantially increased tree mortality in the coming decade due to insects and disease.

The State of Oklahoma along with the Forest Service seek designation of an extensive landscape of forest communities in Le Flore and McCurtain Counties as initial areas for an insect and disease risk reduction program as outlined in Section 602 (b) (1) of the Agricultural Act of 2014. Reasons for this designation include the following:

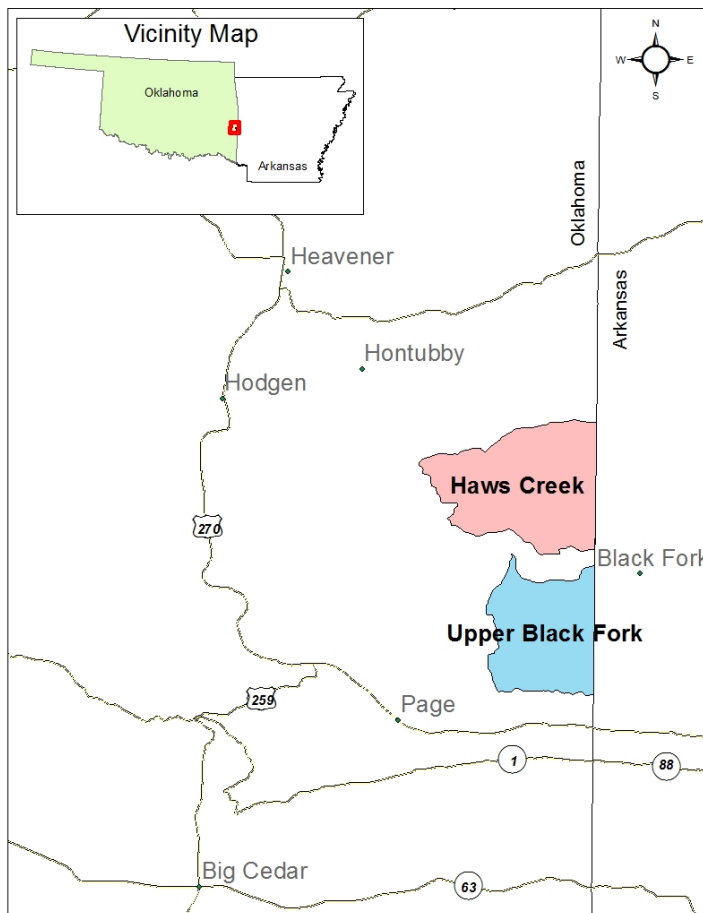
- The 2012 National Insect and Disease Risk Map (NIDRM) contains a nationwide strategic assessment of the hazard of tree mortality due to insects and diseases, displayed as a series of maps. Figure 1 shows one of these maps, displaying the risk, or *hazard*, of the southern pine beetle in Oklahoma. The 2013-2027 projection shows that southeastern Oklahoma, including Le Flore and McCurtain Counties, could potentially lose up to 24% of the tree density to southern pine beetle outbreaks. These two counties, which have a substantial portion of their land base under National Forest management, have



**Figure 1: \*Hazard rating for the southern pine beetle, based on the US Forest Service National Insect and Disease Risk Map (NIDRM) for a 15 year period, 2013-2027. Le Flore and McCurtain Counties have approximately 30,000 acres rated as high hazard, and over 450,000 rated as moderate hazard (not shown on this figure).**

approximately 30,000 acres rated as a high hazard for SPB, and over 450,000 acres rated as moderate hazard. These figures include both immature and over-mature stands, and can include overly-dense mature stands. Southern pine beetle outbreaks could easily reach epidemic levels in this landscape where southern pine trees are growing in high densities with low vigor.

- Within these counties, the Haws Creek and Upper Black Fork subwatersheds in Le Flore County (Figure 2) have been identified as high priority for treatment. Over 25% of the forested areas on



**Figure 2: Haws Creek and Blackfork Creek subwatersheds have been identified nationally in the NIDRM analysis as having substantial area in pine forest communities that are overstocked and at an elevated risk for insect and disease attack.**

National Forest lands in these subwatersheds are at risk of substantial loss due to the potential of bark beetle infestation over the next 15 years with no action taken. Approximately 35% of Haws Creek and 28% of Upper Black Fork subwatershed have stands of pine timber that are in an overstocked condition, making them susceptible to attack by insects and disease. Some of these stands are already showing signs of a disease commonly known as “red heart,” which attacks over-mature pine and causes the center of the tree to rot and eventually die. The greatest threat to these stands of pine, though, is a large outbreak of southern pine beetles.

- Within the Tiak District of the Ouachita National Forest, approximately 24 stands totaling 984 acres, have been identified by the Forest Service District staff that fall within the “high” hazard for southern pine beetle attack. The remaining

10% is rated as “medium” hazard for southern pine beetle attack. The age of these stands range from 21-30 years, and the trees are of commercial size. The southern pine beetle hazard rating is based on the density of the stands and size of the trees. The basal area (a measure of density) of most of the stands in question is well over 100 square feet per acre, with several stands approaching 200 square feet of basal area per acre. The desired density for optimum forest health is 50-70 square feet per acre, a reduction of 50% or more from the current density.

- Many of these over-crowded stands are within the Wildland Urban Interface (WUI), and a reduction in density would help reduce the risk of damage from wildfires to adjacent structures and agricultural facilities.
- In the past several years, chronic scattered infestations of the *lps* pine beetle have caused some losses of trees in this area, which indicates a widespread condition of low vigor and an ever-increasing potential of epidemic outbreaks of southern pine beetle activity. This condition is likely to continue due to effects from predicted long-term drought.

The projects within this landscape scale area would include insect and disease risk reduction treatments that would reduce the density of trees in stands that are overstocked or overly-dense and experiencing low vigor. Other actions could include reducing the density of unmerchantable trees in the stands and periodic controlled under-burning of selected stands.

Implementation of projects within the requested landscape area would address major priorities of the Healthy Forests Restoration Act. These actions would reduce the risks to National Forest lands across this landscape and increase the resilience to pine beetle attack as well as disease threats, thereby improving overall forest health. These actions would also be expected to reduce the risk to the public from dead and/or dying trees, pine beetle infestations moving from public to private lands, and wildfire threats. This project also addresses the Forest Sustainability and Health issue in Oklahoma's Forest Action Plan, and Oklahoma Forestry Services' Southern Pine Beetle Prevention Program, a partnership with the Southern Region of the USDA Forest Service.

The Forest Service and Oklahoma Forestry Services, a division of the Oklahoma Department of Agriculture, Food and Forestry agree that it is critical that risk reduction work for the southern pine beetle, *lps* beetle and forest diseases be completed soon, before the next potential epidemic.

The vision of the Ouachita National Forest, as stated in the 2005 Revised Forest Plan, "is a model of sustainable ecosystem management, featuring healthy ecosystems that provide a balanced and sustainable flow of goods and services for a growing, diverse population." Guides for healthy densities for forest communities in the Ouachita Mountains and nearby West Gulf Coastal Plain average 50 – 70 square feet of basal area per acre, depending on the age and forest type. The vegetation management goals and desired conditions of the Forest Plan are very similar to the direction in the Healthy Forests Restoration Act, including the control of insect outbreaks, reducing the risk of insect and disease threats, enhancing ecosystem health, restoring native species' habitats, and maintenance and/or restoration of forest vigor. Designation of this landscape will enable the State of Oklahoma, through the USDA Forest Service, to take steps using active management to substantially improve forest health, avoid the substantial increase in tree mortality expected without these actions, and reduce the risk to the public from hazard trees and hazardous fuel conditions produced by tree mortality.

The Ouachita National Forest in cooperation with Oklahoma Forestry Services will continue to refine the specific projects to be implemented within the scope of this landscape proposal.

Ouachita National Forest Supervisor Norm Wagoner together with his district staff will continue to collaborate with the State of Oklahoma and other partners on this project as we evaluate declining

forest health and increased risk for insect and disease infestations. The Forest Service will integrate this effort with continued sustained flow of wood products to the local economy.

The designation of Le Flore and McCurtain Counties in the State of Oklahoma as landscape scale treatment areas will go a long way in furthering these efforts.