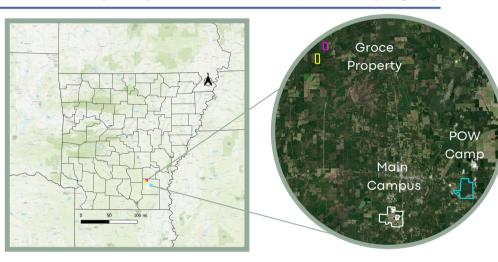
# THE BENEFITS OF TREES ON THE UAM CAMPUS

## **University of Arkansas at Monticello**

The University of Arkansas at Monticello (UAM), established in 1909, is a public university part of the University of Arkansas System. UAM owns more than 1,650 acres of land, which include three properties: the UAM main campus, Prisoners of War Camp (POW), and Groce Property (north and south blocks). UAM achieved the Tree Campus USA status in 2010 for promoting healthy urban forest management and engaging the campus community in environmental stewardship. Enrolling the campus in such type of program is important because colleges and universities are responsible for about two percent of the total carbon emissions nationwide [1].

## **Arkansas (Left) and UAM Properties (Right)**



## **UAM Properties Land Cover Class**

Trees and shrubs are UAM properties dominant land cover type, which is followed by the grass and herbaceous type.





## **Total Carbon Storage**

\$6,607,155

UAM's forest has provided ecosystem services valued in more than \$6 million to its surrounding communities from the storage of about 44 thousand tons of carbon, which is equivalent to almost 163 thousand tons of CO<sub>2</sub>.

### **Annual Benefits**

#### Air Pollution Removal

ton of Carbon Monoxide (CO)

\$852

 $\begin{array}{c}
\mathbf{27} \\
\text{tons of} \\
\text{Ozone } (O_3)
\end{array}$ 

\$70,769

## **Carbon Sequestration**

5,644 tons of Carbon Dioxide(CO<sub>2</sub>)

\$263,089

An average automobile emits about 5.1 short tons of CO<sub>2</sub> per year. UAM sequesters the CO<sub>2</sub> emissions of 1,107 automobiles every year.

#### **Avoid Runoff**

9,362 gallons of runoff water

\$83

The average water use per person is about 82 gal/day. UAM saves water for 114 people.

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Total Annual
Economic Benefits

\$533,184

UAM trees remove about 42 tons of air pollutants (CO, O<sub>3</sub>, NO<sub>2</sub>, SO<sub>2</sub>, PM2.5, PM10) from the atmosphere, sequester almost 6 thousand tons carbon dioxide (CO<sub>2</sub>), and avoid runoff of more than 9 thousand gallons of water equivalent to more than half a million dollars annually in benefits to the community.





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tons of other Air
Pollutants

\$198,391

