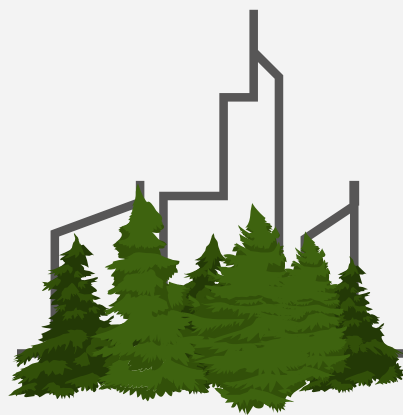


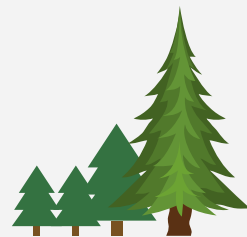
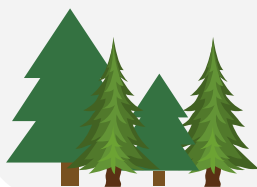
# URBAN TREE BENEFITS



Trees and/or green space in a city play a crucial role in maintaining and providing numerous environmental and economic benefits to the community. Trees serve structural and functional benefits, aesthetic beauty, and privacy to people while removing air pollutants, sequestering atmospheric carbon, and managing storm water runoff. In these fact sheets, we illustrate the benefits of urban trees in eight cities out of 46 involved in the Tree City USA program in Arkansas. Community engagement, urban tree care, and urban forest management are essential requirements to become a Tree City USA. These fact sheets provide estimates of urban tree benefits in terms of dollars value and meaningful comparisons, which will increase your understanding of the benefits of city green spaces.

Fayetteville	-----	2
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McGehee	-----	5
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Pine Bluff	-----	7
Star City	-----	8
Warren	-----	9

Prepared by Pradip Saud, Sagar Godar Chhetri, Ana Gutierrez, and Matthew Pelkki



# URBAN TREE BENEFITS

## CONWAY, ARKANSAS



Air pollution removal



Carbon sequestration



Clean air/oxygen production

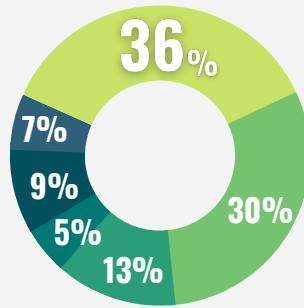


Avoided water runoff



Energy saving

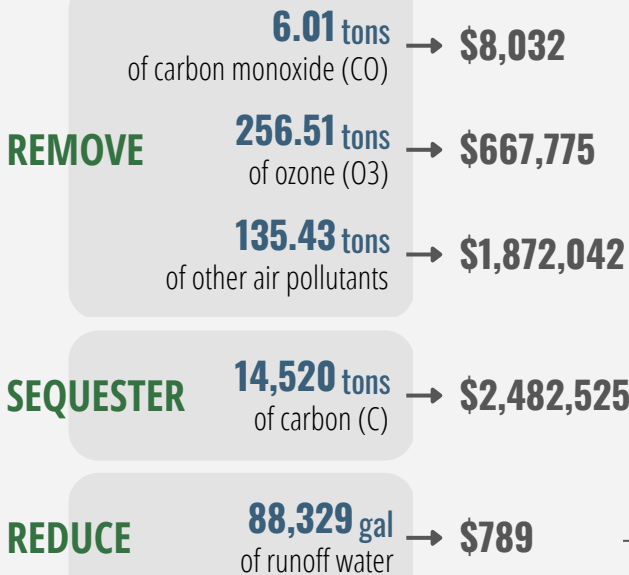
Conway is located in Faulkner County. As of the 2020 census, it had a population of 64,134 in a total area of 46.7 mi<sup>2</sup>. The city enrolled in the Tree City USA program in 2006. Urban trees have provided environmental and economic benefits to the communities of Conway for 16 years.



### CONWAY LAND COVER

- Tree/shrub
- Soil/bare ground
- Grass/herbaceous
- Roads
- Buildings
- Other

### ANNUAL URBAN TREE BENEFITS ACCRUED TO CONWAY



An average automobile emits about **5.1** short tons of CO<sub>2</sub> per year



The trees of Conway take out the CO<sub>2</sub> emissions of **10,526** automobiles each year



The trees of Conway save water for **1,077** people

In total, urban trees in Conway have stored **364,793** tons of carbon, equivalent to **\$62,345,530**

Average water use per person is about **82** gal/day

Prepared by Pradip Saud, Sagar Godar Chhetri, Ana Gutierrez, and Matthew Pelkki



# URBAN TREE BENEFITS

## FAYETTEVILLE, ARKANSAS



Air pollution removal



Carbon sequestration



Clean air/oxygen production

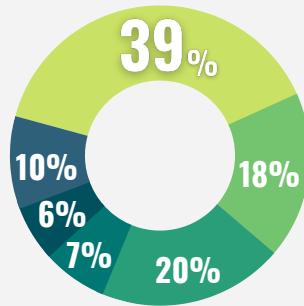


Avoided water runoff



Energy saving

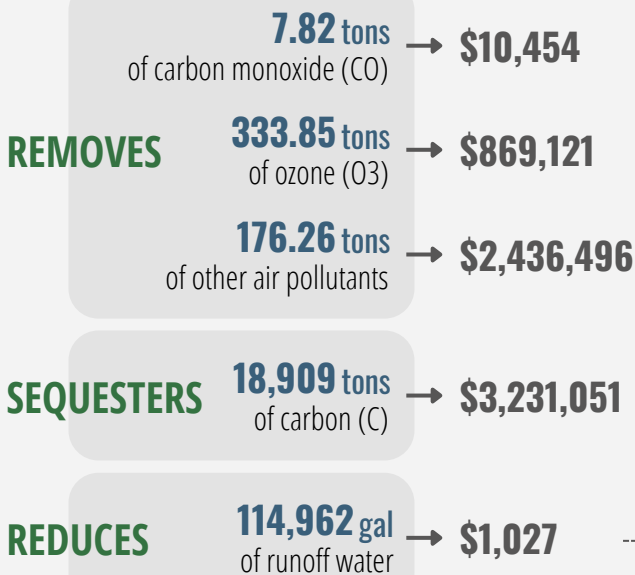
Fayetteville is the second-largest city in Arkansas and is located in Washington County. As of the 2020 census, it had a population of 93,949 in a total area of 55.2 mi<sup>2</sup>. The city enrolled in the Tree City USA program in 1995. Urban trees have provided environmental and economic benefits to the communities of Fayetteville for 27 years.



### FAYETTEVILLE LAND COVER

- Tree/shrub
- Soil/bare ground
- Grass/herbaceous
- Roads
- Buildings
- Other

### ANNUAL URBAN TREE BENEFITS ACCRUED TO FAYETTEVILLE



An average automobile emits about **5.1** short tons of CO<sub>2</sub> per year



The trees of Fayetteville take out the CO<sub>2</sub> emissions of **13,700** automobiles each year

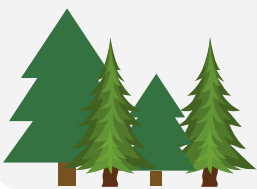


The trees of Fayetteville save water for **1,402** people

Average water use per person is about **82** gal/day

In total, urban trees in Fayetteville have stored **474,782** tons of carbon, equivalent to **\$81,143,807**

Prepared by Pradip Saud, Sagar Godar Chhetri, Ana Gutierrez, and Matthew Pelkki



# URBAN TREE BENEFITS

## FORT SMITH, ARKANSAS



Air pollution removal



Carbon sequestration



Clean air/oxygen production

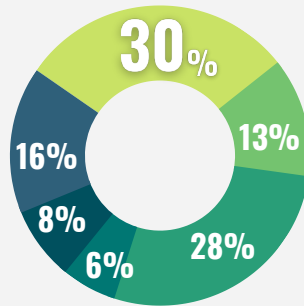


Avoided water runoff



Energy saving

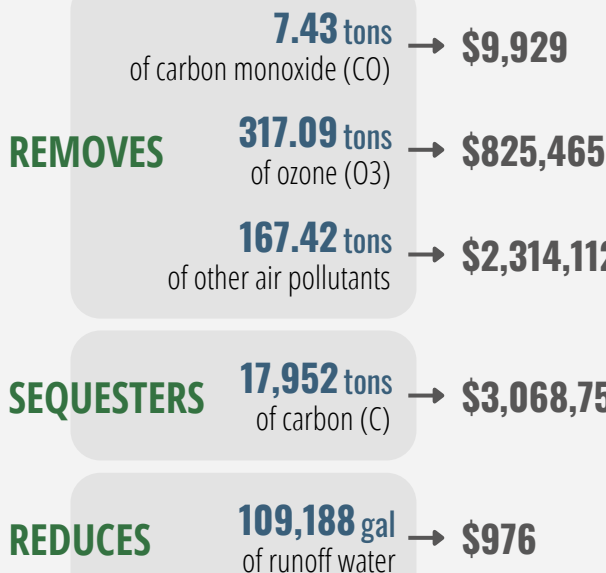
Fort Smith is the third-largest city in Arkansas and is situated in Sebastian County. As of the 2020 census, it had a population of 89,142 in a total area of 68.2 mi<sup>2</sup>. The city enrolled in the Tree City USA program in 2006. Urban trees have provided environmental and economic benefits to the communities of Fort Smith for 16 years.



### FORT SMITH LAND COVER

- Tree/shrub
- Soil/bare ground
- Grass/herbaceous
- Roads
- Buildings
- Other

### ANNUAL URBAN TREE BENEFITS ACCRUED TO FORT SMITH



An average automobile emits about **5.1** short tons of CO<sub>2</sub> per year



The trees of Fort Smith take out the CO<sub>2</sub> emissions of **13,011 automobiles** each year

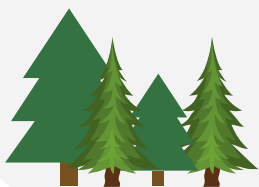


The trees of Fort Smith save water for **1,332 people**

In total, urban trees in Fort Smith have stored **450,934 tons** of carbon, equivalent to **\$77,068,006**

Average water use per person is about **82 gal/day**

Prepared by Pradip Saud, Sagar Godar Chhetri, Ana Gutierrez, and Matthew Pelkki



# URBAN TREE BENEFITS

## LITTLE ROCK, ARKANSAS



Air pollution removal



Carbon sequestration



Clean air/oxygen production

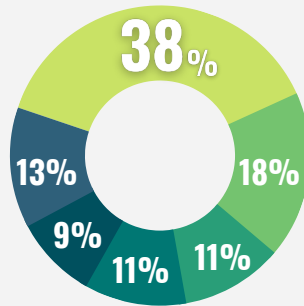


Avoided water runoff



Energy saving

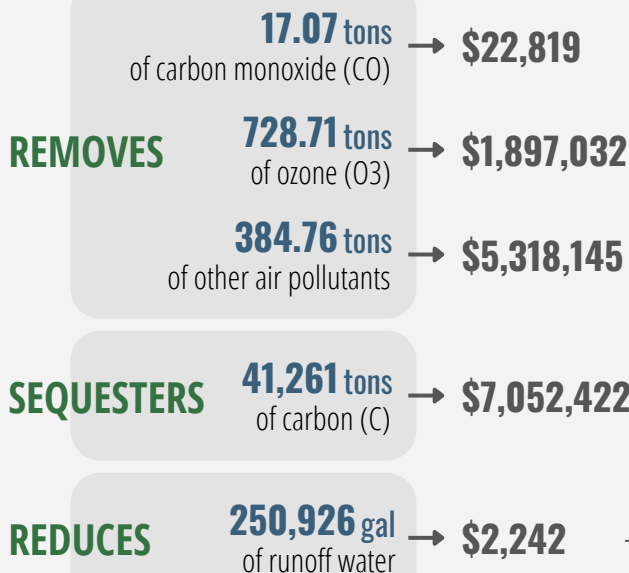
Little Rock is the capital and most populous city of Arkansas and is located in Pulaski County. As of the 2020 census, it had a population of 202,514 in a total area of 123 mi<sup>2</sup>. The city enrolled in the Tree City USA program in 2001. Urban trees have provided environmental and economic benefits to the communities of Little Rock for 21 years.



### LITTLE ROCK LAND COVER

- Tree/shrub
- Soil/bare ground
- Grass/herbaceous
- Roads
- Buildings
- Other

### ANNUAL URBAN TREE BENEFITS ACCRUED TO LITTLE ROCK



An average automobile emits about **5.1** short tons of CO<sub>2</sub> per year



The trees of Little Rock take out the CO<sub>2</sub> emissions of **29,902** automobiles each year

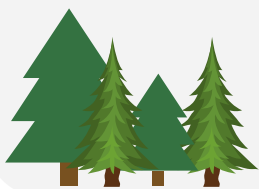


The trees of Little Rock save water for **3,060** people

Average water use per person is about **82** gal/day

In total, urban trees in Little Rock have stored **1,036,299** tons of carbon, equivalent to **\$177,112,786**

Prepared by Pradip Saud, Sagar Godar Chhetri, Ana Gutierrez, and Matthew Pelkki



# URBAN TREE BENEFITS

## MCGEHEE, ARKANSAS



Air pollution removal



Carbon sequestration



Clean air/oxygen production

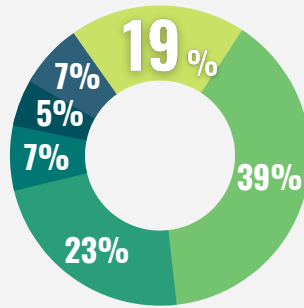


Avoided water runoff



Energy saving

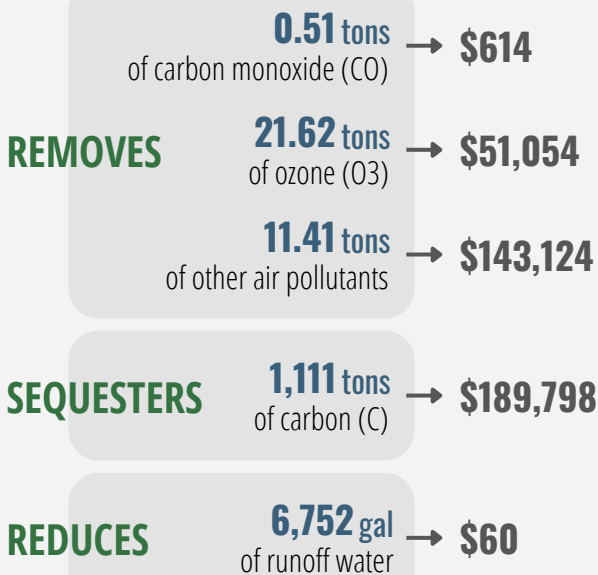
McGehee is located in Desha County. As of the 2020 census, it had a population of 3,849 in a total area of 6.71 mi<sup>2</sup>. The city enrolled in the Tree City USA program in 2019. Urban trees have provided environmental and economic benefits to the communities of McGehee for 3 years.



### MCGEHEE LAND COVER

- Tree/shrub
- Soil/bare ground
- Grass/herbaceous
- Roads
- Buildings
- Other

### ANNUAL URBAN TREE BENEFITS ACCRUED TO MCGEHEE



An average automobile emits about **5.1** short tons of CO<sub>2</sub> per year



The trees of McGehee take out the CO<sub>2</sub> emissions of **804 automobiles** each year

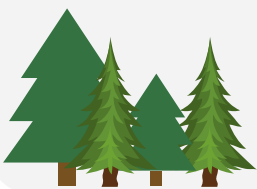


The trees of McGehee save water for **82 people**

In total, urban trees in McGehee have stored **27,885 tons** of carbon, equivalent to **\$4,766,531**

Average water use per person is about **82 gal/day**

Prepared by Pradip Saud, Sagar Godar Chhetri, Ana Gutierrez, and Matthew Pelkki



# URBAN TREE BENEFITS

## MONTICELLO, ARKANSAS



Air pollution removal



Carbon sequestration



Clean air/oxygen production

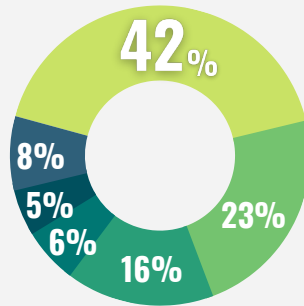


Avoided water runoff



Energy saving

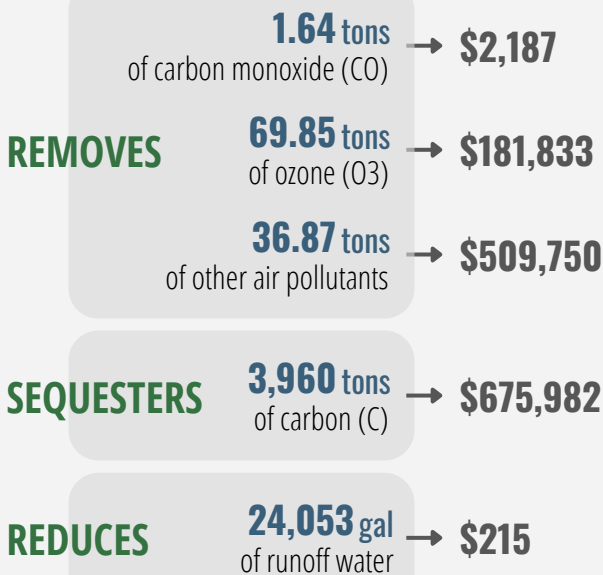
Monticello is one of the largest towns in Southeast Arkansas and is located in Drew County. As of the 2020 census, it had a population of 8,442 in a total area of 10.74 mi<sup>2</sup>. The city enrolled in the Tree City USA program in 2008. Urban trees have provided environmental and economic benefits to the communities of Monticello for 14 years.



### MONTICELLO LAND COVER

- Tree/shrub
- Soil/bare ground
- Grass/herbaceous
- Roads
- Buildings
- Other

### ANNUAL URBAN TREE BENEFITS ACCRUED TO MONTICELLO



An average automobile emits about **5.1** short tons of CO<sub>2</sub> per year



The trees of Monticello take out the CO<sub>2</sub> emissions of **2,865** automobiles each year

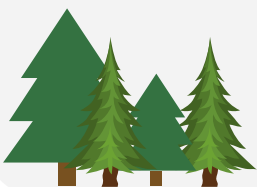


The trees of Monticello save water for **293** people

Average water use per person is about **82** gal/day

In total, urban trees in Monticello have stored **99,330** tons of carbon, equivalent to **\$16,976,454**

Prepared by Pradip Saud, Sagar Godar Chhetri, Ana Gutierrez, and Matthew Pelkki



# URBAN TREE BENEFITS

## PINE BLUFF, ARKANSAS



Air pollution removal



Carbon sequestration



Clean air/oxygen production

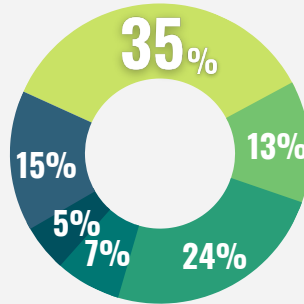


Avoided water runoff



Energy saving

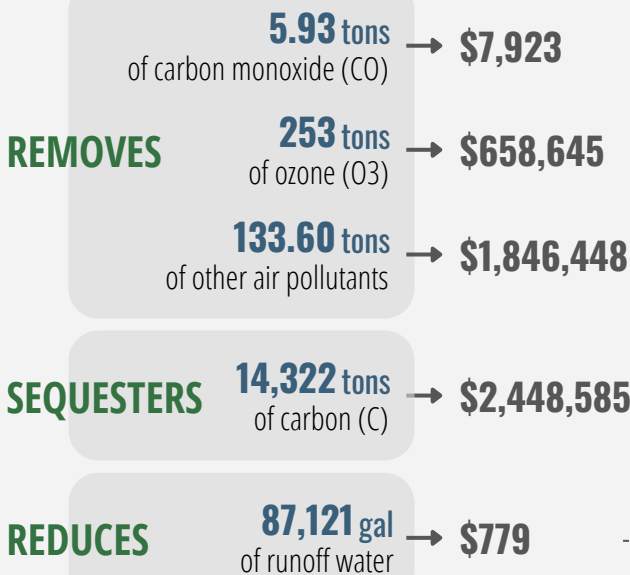
Pine Bluff is the tenth-largest city in Arkansas and is located in Jefferson County. As of the 2020 census, it had a population of 41,253 in a total area of 46.38 mi<sup>2</sup>. The city enrolled in the Tree City USA program in 2013. Urban trees have provided environmental and economic benefits to the communities of Pine Bluff for 9 years.



### PINE BLUFF LAND COVER

- Tree/shrub
- Soil/bare ground
- Grass/herbaceous
- Roads
- Buildings
- Other

### ANNUAL URBAN TREE BENEFITS ACCRUED TO PINE BLUFF



An average automobile emits about **5.1** short tons of CO<sub>2</sub> per year



The trees of Pine Bluff take out the CO<sub>2</sub> emissions of **10,383** automobiles each year

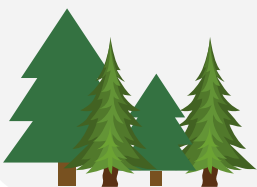


The trees of Pine Bluff save water for **1,062** people

In total, urban trees in Pine Bluff have stored **359,799** tons of carbon, equivalent to **\$61,493,152**

Average water use per person is about **82** gal/day

Prepared by Pradip Saud, Sagar Godar Chhetri, Ana Gutierrez, and Matthew Pelkki





# URBAN TREE BENEFITS

## STAR CITY, ARKANSAS



Air pollution removal



Carbon sequestration



Clean air/oxygen production

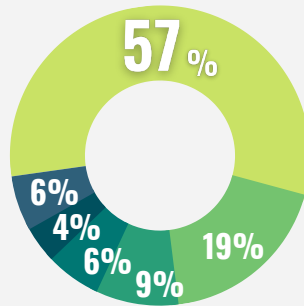


Avoided water runoff



Energy saving

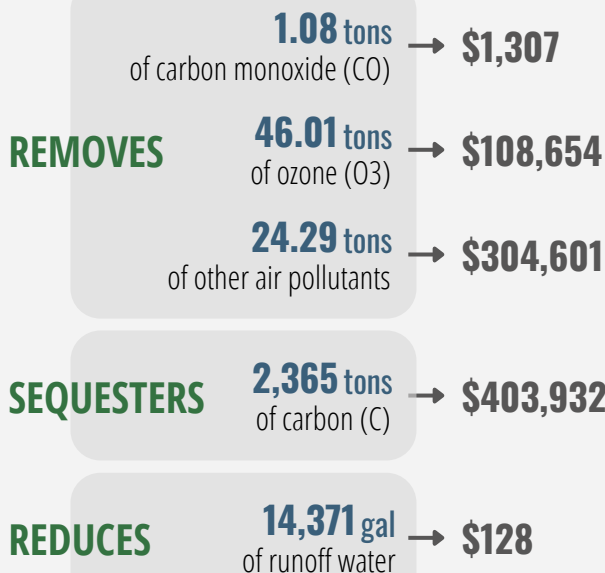
Star City is located in Lincoln County. As of the 2020 census, it had a population of 2,173 in a total area of 4.8 mi<sup>2</sup>. The city enrolled in the Tree City USA program in 2012. Urban trees have provided environmental and economic benefits to the communities of Star City for 10 years.



### STAR CITY LAND COVER

- Tree/shrub
- Soil/bare ground
- Grass/herbaceous
- Roads
- Buildings
- Other

### ANNUAL URBAN TREE BENEFITS ACCRUED TO STAR CITY



An average automobile emits about **5.1** short tons of CO<sub>2</sub> per year



The trees of Star City take out the CO<sub>2</sub> emissions of **1,713** automobiles each year

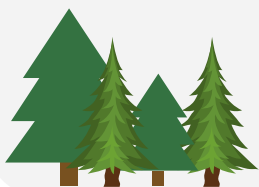


The trees of Star City save water for **175** people

In total, urban trees in Star City have stored **59,356** tons of carbon, equivalent to **\$10,144,254**

Average water use per person is about **82** gal/day

Prepared by Pradip Saud, Sagar Godar Chhetri, Ana Gutierrez, and Matthew Pelkki



# URBAN TREE BENEFITS

## WARREN, ARKANSAS



Air pollution removal



Carbon sequestration



Clean air/oxygen production

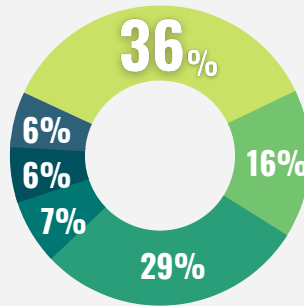


Avoided water runoff



Energy saving

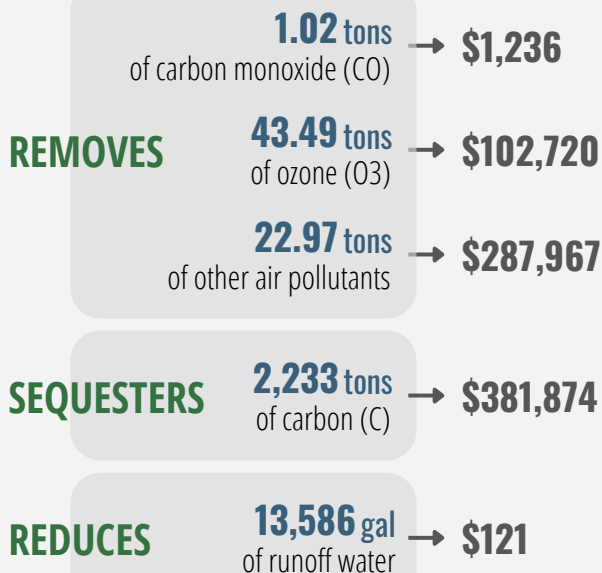
Warren is located in Bradley County. As of the 2020 census, it had a population of 5,453 in a total area of 7.06 mi<sup>2</sup>. The city enrolled in the Tree City USA program in 2005. Urban trees have provided environmental and economic benefits to the communities of Warren for 17 years.



### WARREN LAND COVER

- Tree/shrub
- Soil/bare ground
- Grass/herbaceous
- Roads
- Buildings
- Other

### ANNUAL URBAN TREE BENEFITS ACCRUED TO WARREN



An average automobile emits about **5.1** short tons of CO<sub>2</sub> per year



The trees of Warren take out the CO<sub>2</sub> emissions of **1,620** automobiles each year



The trees of Warren save water for **166** people

In total, urban trees in Warren have stored **56,111** tons of carbon, equivalent to **\$9,590,294**

Average water use per person is about **82** gal/day

Prepared by Pradip Saud, Sagar Godar Chhetri, Ana Gutierrez, and Matthew Pelkki

