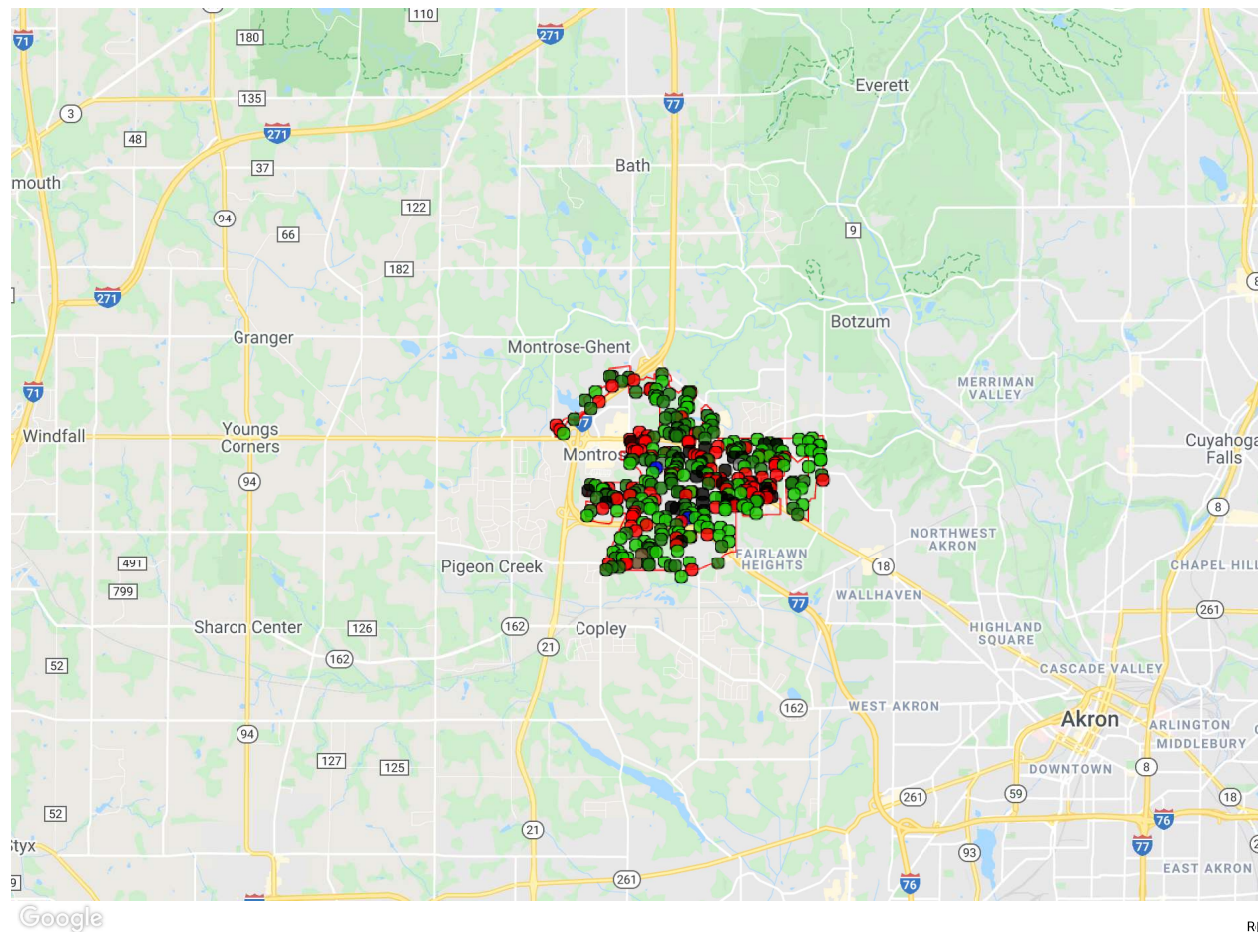


# i-Tree Canopy v7.1

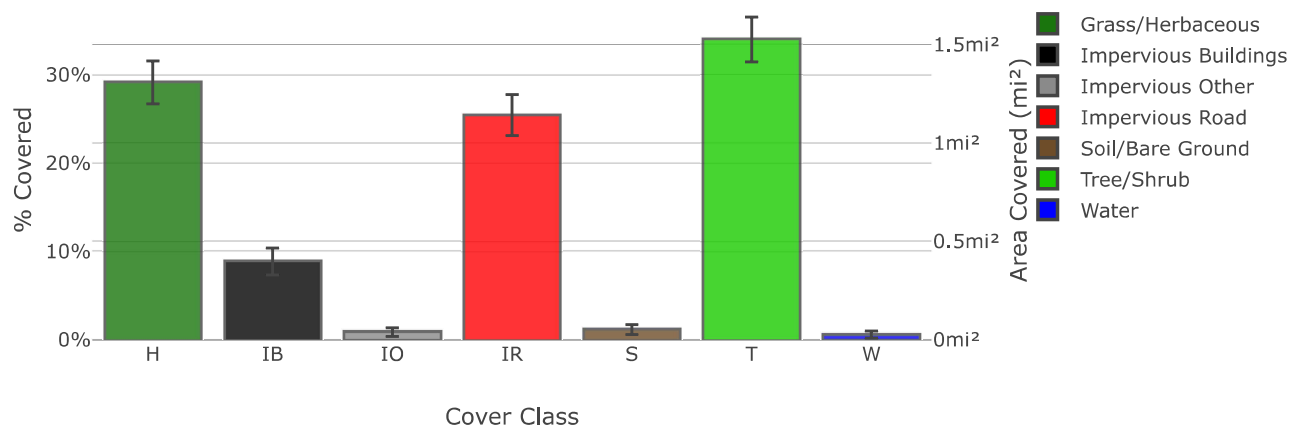
## Cover Assessment and Tree Benefits Report

Estimated using random sampling statistics on 5/21/2021



RMap data ©2021

### Land Cover



Abbr.	Cover Class	Description	Points	% Cover $\pm$ SE	Area (mi <sup>2</sup> ) $\pm$ SE
H	Grass/Herbaceous		102	29.14 $\pm$ 2.43	1.31 $\pm$ 0.11
IB	Impervious Buildings		31	8.86 $\pm$ 1.52	0.40 $\pm$ 0.07
IO	Impervious Other		3	0.86 $\pm$ 0.49	0.04 $\pm$ 0.02
IR	Impervious Road		89	25.43 $\pm$ 2.33	1.14 $\pm$ 0.10
S	Soil/Bare Ground		4	1.14 $\pm$ 0.57	0.05 $\pm$ 0.03
T	Tree/Shrub		119	34.00 $\pm$ 2.53	1.53 $\pm$ 0.11
W	Water		2	0.57 $\pm$ 0.40	0.03 $\pm$ 0.02
<b>Total</b>			<b>350</b>	<b>100.00</b>	<b>4.49</b>

### Tree Benefit Estimates: Carbon (English units)

Description	Carbon (kT)	$\pm$ SE	CO <sub>2</sub> Equiv. (kT)	$\pm$ SE	Value (USD)	$\pm$ SE
Sequestered annually in trees	1.08	$\pm$ 0.08	3.96	$\pm$ 0.30	\$184,376	$\pm$ 13,731
Stored in trees (Note: this benefit is not an annual rate)	33.50	$\pm$ 2.49	122.83	$\pm$ 9.15	\$5,713,271	$\pm$ 425,484

Currency is in USD and rounded. Standard errors of removal and benefit amounts are based on standard errors of sampled and classified points. Amount sequestered is based on 0.708 kT of Carbon, or 2.596 kT of CO<sub>2</sub>, per mi<sup>2</sup>/yr and rounded. Amount stored is based on 21.940 kT of Carbon, or 80.446 kT of CO<sub>2</sub>, per mi<sup>2</sup> and rounded. Value (USD) is based on \$170,550.73/kT of Carbon, or \$46,513.84/kT of CO<sub>2</sub> and rounded. (English units: kT = kilotons (1,000 tons), mi<sup>2</sup> = square miles)

### Tree Benefit Estimates: Air Pollution (English units)

Abbr.	Description	Amount (lb)	$\pm$ SE	Value (USD)	$\pm$ SE
CO	Carbon Monoxide removed annually	695.24	$\pm$ 51.78	\$464	$\pm$ 35
NO2	Nitrogen Dioxide removed annually	3,051.44	$\pm$ 227.25	\$640	$\pm$ 48
O3	Ozone removed annually	47,373.59	$\pm$ 3,528.05	\$59,446	$\pm$ 4,427
SO2	Sulfur Dioxide removed annually	3,316.39	$\pm$ 246.98	\$208	$\pm$ 15
PM2.5	Particulate Matter less than 2.5 microns removed annually	3,465.36	$\pm$ 258.08	\$190,125	$\pm$ 14,159
PM10*	Particulate Matter greater than 2.5 microns and less than 10 microns removed annually	25,309.31	$\pm$ 1,884.86	\$79,325	$\pm$ 5,908
<b>Total</b>		<b>83,211.34</b>	<b><math>\pm</math>6,196.99</b>	<b>\$330,207</b>	<b><math>\pm</math>24,592</b>

Currency is in USD and rounded. Standard errors of removal and benefit amounts are based on standard errors of sampled and classified points. Air Pollution Estimates are based on these values in lb/mi<sup>2</sup>/yr @ \$/lb/yr and rounded:

CO 455.344 @ \$0.67 | NO2 1,998.519 @ \$0.21 | O3 31,027.025 @ \$1.25 | SO2 2,172.049 @ \$0.06 | PM2.5 2,269.614 @ \$54.86 | PM10\* 16,576.168 @ \$3.13 (English units: lb = pounds, mi<sup>2</sup> = square miles)

### Tree Benefit Estimates: Hydrological (English units)

Abbr.	Benefit	Amount (Mgal)	$\pm$ SE	Value (USD)	$\pm$ SE
AVRO	Avoided Runoff	15.28	$\pm$ 1.14	\$136,511	$\pm$ 10,166
E	Evaporation	85.99	$\pm$ 6.40	N/A	N/A
I	Interception	86.03	$\pm$ 6.41	N/A	N/A
T	Transpiration	121.41	$\pm$ 9.04	N/A	N/A
PE	Potential Evaporation	550.09	$\pm$ 40.97	N/A	N/A
PET	Potential Evapotranspiration	413.02	$\pm$ 30.76	N/A	N/A

Currency is in USD and rounded. Standard errors of removal and benefit amounts are based on standard errors of sampled and classified points. Hydrological Estimates are based on these values in Mgal/mi<sup>2</sup>/yr @ \$/Mgal/yr and rounded:

AVRO 10.005 @ \$8,936.00 | E 56.321 @ N/A | I 56.342 @ N/A | T 79.515 @ N/A | PE 360.281 @ N/A | PET 270.507 @ N/A (English units: Mgal = millions of gallons, mi<sup>2</sup> = square miles)

#### About i-Tree Canopy

The concept and prototype of this program were developed by David J. Nowak, Jeffery T. Walton, and Eric J. Greenfield (USDA Forest Service). The current version of this program was developed and adapted to i-Tree by David Ellingsworth, Mike Binkley, and Scott Maco (The Davey Tree Expert Company)

#### Limitations of i-Tree Canopy

The accuracy of the analysis depends upon the ability of the user to correctly classify each point into its correct class. As the number of points increase, the precision of the estimate will increase as the standard error of the estimate will decrease. If too few points are classified, the standard error will be too high to have any real certainty of the estimate.



Additional support provided by:



Use of this tool indicates acceptance of the [EULA](#).

