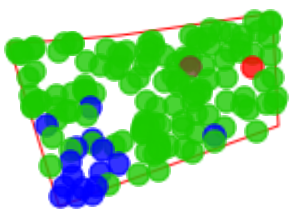
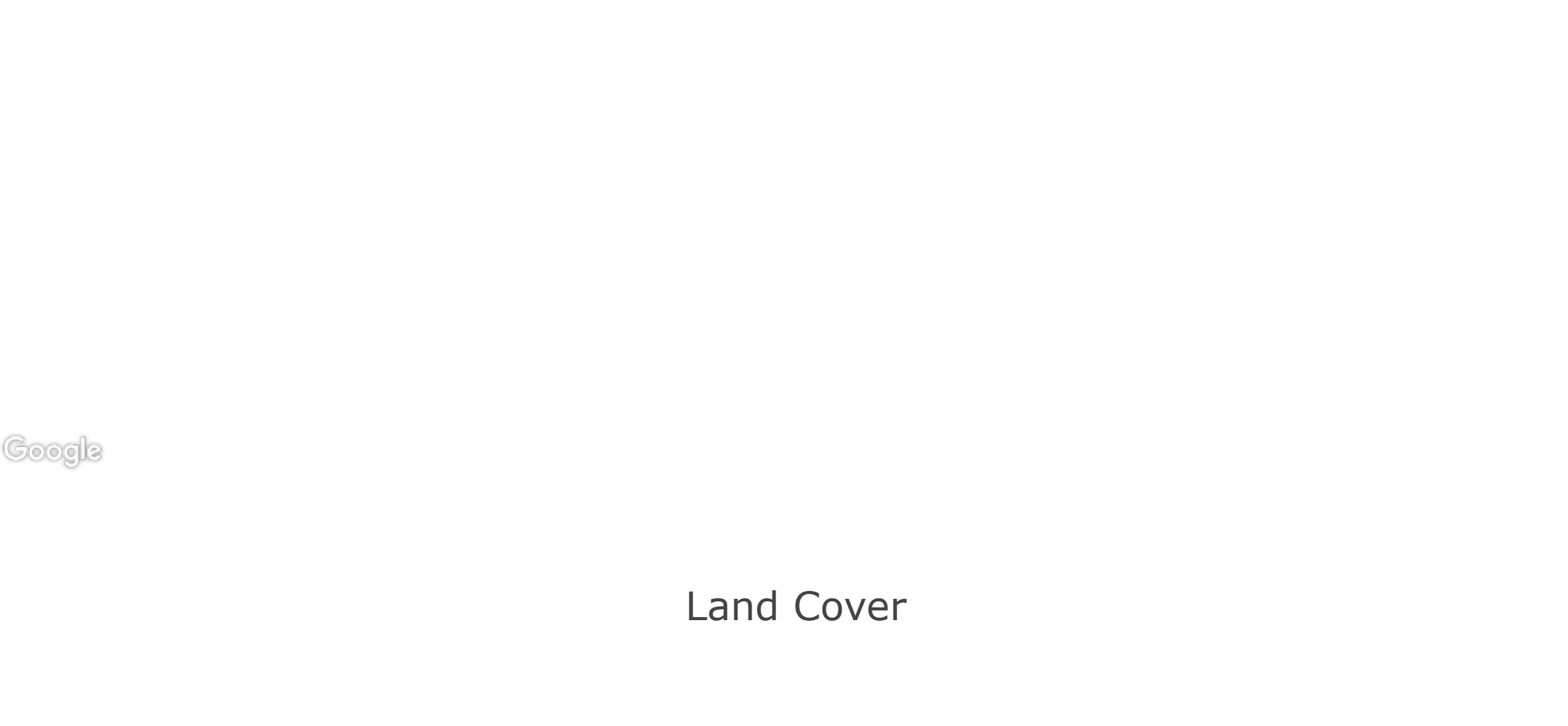
i-Tree Canopy v7.0

Cover Assessment and Tree Benefits Report

Estimated using random sampling statistics on 4/29/2020





Abbr.	Cover Class	Description	Points	% Cover ± SE	Area (mi^2) ± SE
IB	Impervious Buildings	House and Huts	0	0.00 ± 0.00	0.00 ± 0.00
IR	Impervious Road	Primary and Secondary Roads	1	0.69 ± 0.69	0.03 ± 0.03
S	Soil/Bare Ground		1	0.69 ± 0.69	0.03 ± 0.03
T	Tree/Shrub		127	87.59 ± 2.74	4.15 ± 0.13
W	Water	Open water	16	11.03 ± 2.60	0.52 ± 0.12
Total			**145**	**100.00**	**4.74**

Tree Benefit Estimates: Carbon (English units)

Description	Carbon (kT)	±SE	CO_2 Equiv. (kT)	±SE	Value (USD)	±SE
Sequestered annually in trees	3.63	±0.11	13.29	±0.42	$618,379	±19,333
Stored in trees (Note: this benefit is not an annual rate)	91.06	±2.85	333.88	±10.44	$15,529,825	±485,531

Currency is in USD. Standard errors of removal and benefit amounts are based on standard errors of sampled and classified points. Carbon sequestered is based on 0.874 kT/mi^2/yr. Carbon stored is based on 21.940 kT/mi^2. Carbon is valued at $46,513.84/kT. (English units: kT = kilotons (1,000 tons), mi^2 = square miles)

Tree Benefit Estimates: Air Pollution (English units)

Abbr.	Description	Amount (T)	±SE	Value (USD)	±SE
CO	Carbon Monoxide removed annually	1.20	±0.04	$102	±3
NO2	Nitrogen Dioxide removed annually	6.53	±0.20	$175	±5
O3	Ozone removed annually	65.03	±2.03	$9,135	±286
PM10*	Particulate Matter greater than 2.5 microns and less than 10 microns removed annually	21.78	±0.68	$6,632	±207
PM2.5	Particulate Matter less than 2.5 microns removed annually	3.16	±0.10	$18,884	±590
SO2	Sulfur Dioxide removed annually	4.11	±0.13	$31	±1
Total		**101.82**	**±3.18**	**$34,959**	**±1,093**

Currency is in USD. 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 T/mi^2/yr @ $/T/yr:
CO 0.289 @ $85.08 | NO2 1.573 @ $26.86 | O3 15.670 @ $140.47 | PM10* 5.249 @ $304.43 | PM2.5 0.761 @ $5,975.67 | SO2 0.991 @ $7.45 (English units: T = tons (2,000 pounds), mi^2 = square miles)

Tree Benefit Estimates: Hydrological (English units)

Abbr.	Benefit	Amount (Kgal)	±SE	Value (USD)	±SE
AVRO	Avoided Runoff	1.37	±0.04	$12	±0
E	Evaporation	113.40	±3.55	N/A	N/A
I	Interception	114.04	±3.57	N/A	N/A
T	Transpiration	153.45	±4.80	N/A	N/A
PE	Potential Evaporation	859.30	±26.87	N/A	N/A
PET	Potential Evapotranspiration	701.12	±21.92	N/A	N/A

Currency is in USD. 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 Kgal/mi^2/yr @ $/Kgal/yr:
AVRO 0.331 @ $8.94 | E 27.324 @ N/A | I 27.477 @ N/A | T 36.974 @ N/A | PE 207.046 @ N/A | PET 168.932 @ N/A (English units: Kgal = thousands of gallons, mi^2 = 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.