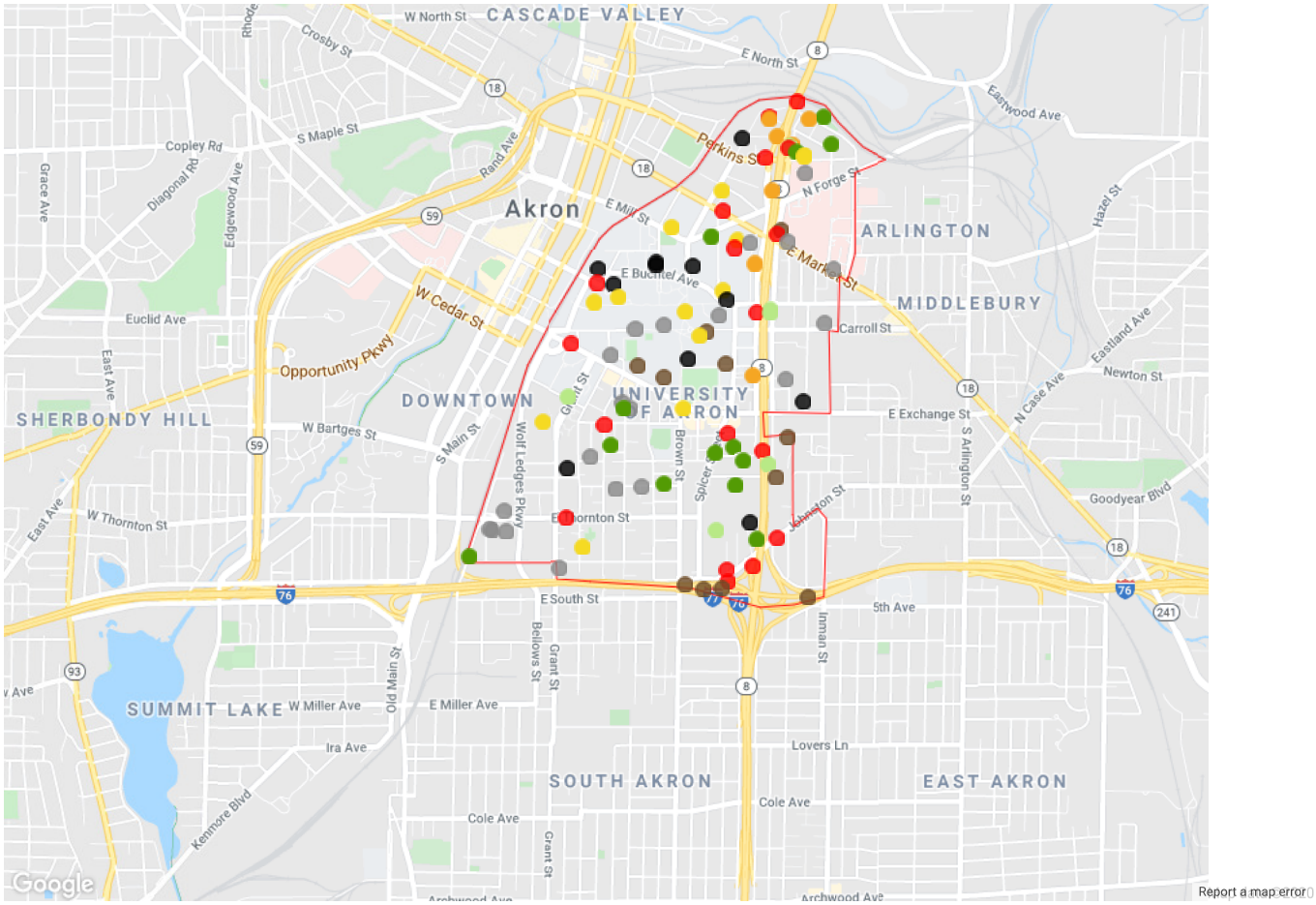
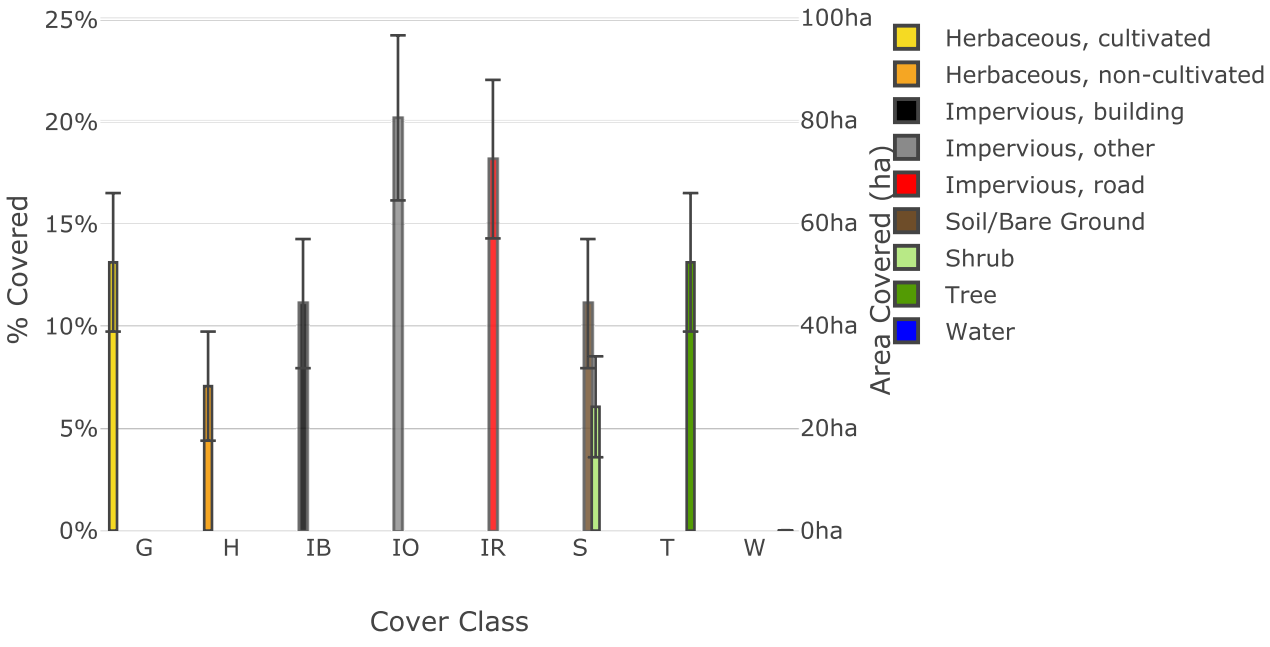
i-Tree Canopy v7.0

Cover Assessment and Tree Benefits Report

Estimated using random sampling statistics on 4/30/2020



Land Cover



Abbr.	Cover Class	Description	Points	% Cover ± SE	Area (ha) ± SE
G	Herbaceous, cultivated	lawn, garden, athletic field, crop	13	13.13 ± 3.39	52.31 ± 13.52
H	Herbaceous, non-cultivated	natural vegetation	7	7.07 ± 2.67	28.17 ± 10.65
IB	Impervious, building		11	11.11 ± 3.16	44.26 ± 12.58
IO	Impervious, other		20	20.20 ± 4.04	80.47 ± 16.07
IR	Impervious, road		18	18.18 ± 3.88	72.42 ± 15.44
S	Soil/Bare Ground		11	11.11 ± 3.16	44.26 ± 12.58
S	Shrub	woody non-tree	6	6.06 ± 2.47	24.14 ± 9.86
T	Tree		13	13.13 ± 3.39	52.31 ± 13.52
W	Water		0	0.00 ± 0.00	0.00 ± 0.00
Total			**99**	**100.00**	**398.34**

Tree Benefit Estimates: Carbon (Metric units)

Description	Carbon (t)	±SE	CO_2 Equiv. (t)	±SE	Value (USD)	±SE
Sequestered annually in trees	160.06	±41.38	586.88	±151.71	$15,045	±3,889
Stored in trees (Note: this benefit is not an annual rate)	4,019.67	±1,039.08	14,738.78	±3,809.97	$377,849	±97,674

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 3.060 t/ha/yr. Carbon stored is based on 76.848 t/ha. Carbon is valued at $25.64/t. (Metric units: t = tonnes, metric tons, ha = hectares)

Tree Benefit Estimates: Air Pollution (Metric units)

Abbr.	Description	Amount (kg)	±SE	Value (USD)	±SE
CO	Carbon Monoxide removed annually	41.71	±10.78	$61	±16
NO2	Nitrogen Dioxide removed annually	183.08	±47.33	$85	±22
O3	Ozone removed annually	2,842.27	±734.73	$7,863	±2,033
PM10*	Particulate Matter greater than 2.5 microns and less than 10 microns removed annually	1,518.48	±392.53	$10,492	±2,712
PM2.5	Particulate Matter less than 2.5 microns removed annually	207.91	±53.74	$25,148	±6,501
SO2	Sulfur Dioxide removed annually	198.97	±51.43	$28	±7
Total		**4,992.42**	**±1,290.54**	**$43,677**	**±11,290**

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 kg/ha/yr @ $/kg/yr:
CO 0.797 @ $1.47 | NO2 3.500 @ $0.46 | O3 54.339 @ $2.77 | PM10* 29.030 @ $6.91 | PM2.5 3.975 @ $120.96 | SO2 3.804 @ $0.14 (Metric units: kg = kilograms, ha = hectares)

Tree Benefit Estimates: Hydrological (Metric units)

Abbr.	Benefit	Amount (Ml)	±SE	Value (USD)	±SE
AVRO	Avoided Runoff	7.65	±1.98	$18,056	±4,668
E	Evaporation	43.06	±11.13	N/A	N/A
I	Interception	43.07	±11.13	N/A	N/A
T	Transpiration	60.79	±15.71	N/A	N/A
PE	Potential Evaporation	275.43	±71.20	N/A	N/A
PET	Potential Evapotranspiration	206.80	±53.46	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 Ml/ha/yr @ $/Ml/yr:
AVRO 0.146 @ $2,360.64 | E 0.823 @ N/A | I 0.823 @ N/A | T 1.162 @ N/A | PE 5.266 @ N/A | PET 3.954 @ N/A (Metric units: Ml = megaliters, ha = hectares)

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.