i-Tree Canopy v7.0

Cover Assessment and Tree Benefits Report

Estimated using random sampling statistics on 5/1/2020
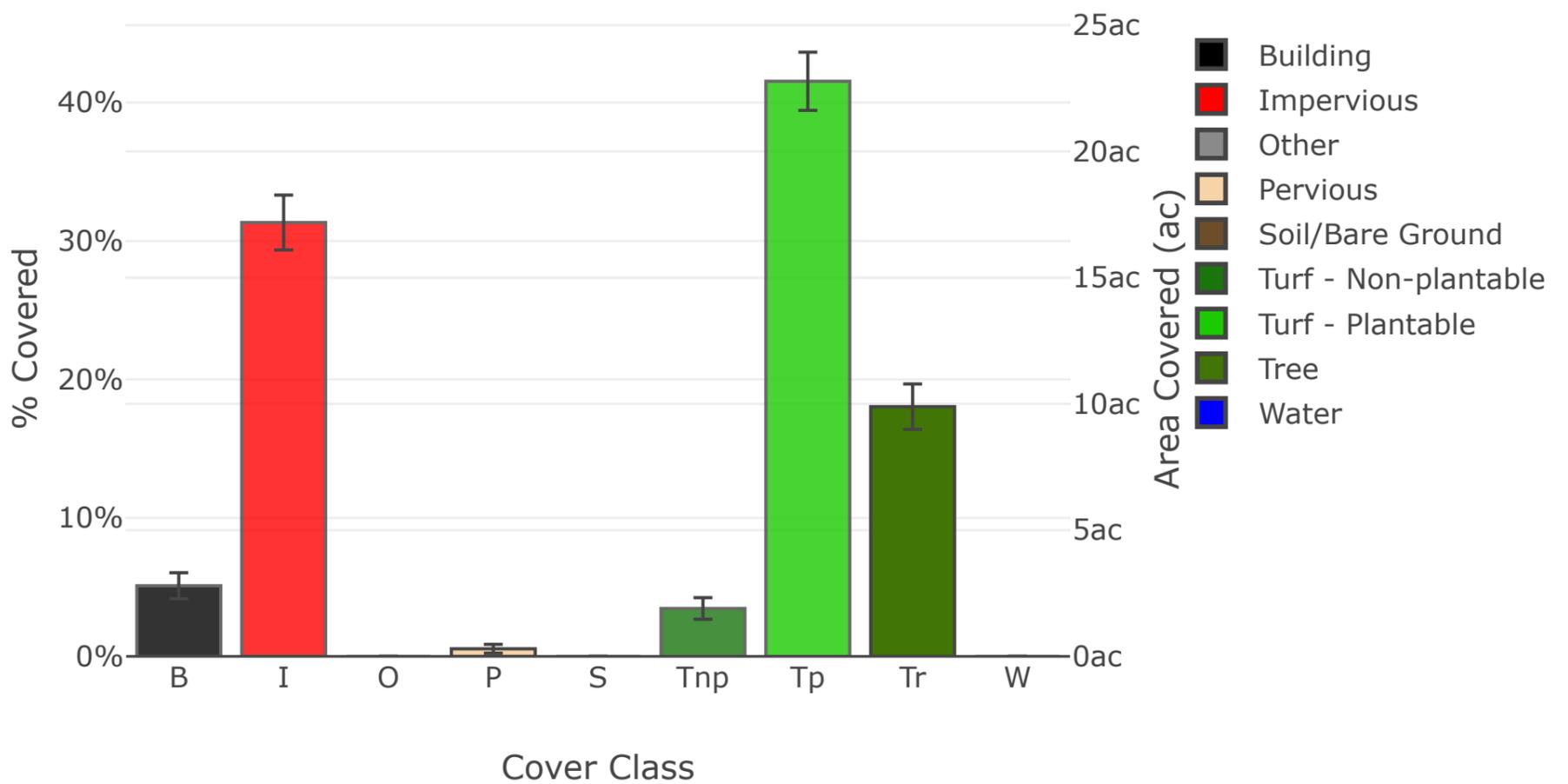
MLK Jr. Park

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Land Cover

Legend:
- Building
- Impervious
- Other
- Pervious
- Soil/Bare Ground
- Turf - Non-plantable
- Turf - Plantable
- Tree
- Water

Abbr.	Cover Class	Description	Points	% Cover ± SE	Area (ac) ± SE
B	Building	building, infrastructure	28	5.10 ± 0.94	2.80 ± 0.52
I	Impervious	road, paved pathway, sidewalk, tennis court, basketball court, splash pad, parking lot	172	31.33 ± 1.98	17.19 ± 1.09
O	Other	other, unknown	0	0.00 ± 0.00	0.00 ± 0.00
P	Pervious	garden, playground	3	0.55 ± 0.32	0.30 ± 0.17
S	Soil/Bare Ground	bare ground, unpaved pathway	0	0.00 ± 0.00	0.00 ± 0.00
Tnp	Turf - Non-plantable	golf course feature, athletic field, underground conflict	19	3.46 ± 0.78	1.90 ± 0.43
Tp	Turf - Plantable	no conflict	228	41.53 ± 2.10	22.78 ± 1.15
Tr	Tree	canopy cover	99	18.03 ± 1.64	9.89 ± 0.90
W	Water	pond, lake, stream, pool	0	0.00 ± 0.00	0.00 ± 0.00
Total			**549**	**100.00**	**54.86**

Tree Benefit Estimates: Carbon (English units)

Description	Carbon (T)	±SE	CO₂ Equiv. (T)	±SE	Value (USD)	±SE
Sequestered annually in trees	13.50	±1.23	49.51	±4.51	$1,152	±105
Stored in trees (Note: this benefit is not an annual rate)	339.14	±30.86	1,243.50	±113.15	$28,920	±2,631

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 1.365 T/ac/yr. Carbon stored is based on 34.281 T/ac. Carbon is valued at $23.26/T. (English units: T = tons (2,000 pounds), ac = acres)

Tree Benefit Estimates: Air Pollution (English units)

Abbr.	Description	Amount (lb)	±SE	Value (USD)	±SE
CO	Carbon Monoxide removed annually	10.72	±0.98	$7	±1
NO2	Nitrogen Dioxide removed annually	65.99	±6.00	$17	±2
O3	Ozone removed annually	499.52	±45.45	$1,095	±100
PM10*	Particulate Matter greater than 2.5 microns and less than 10 microns removed annually	71.81	±6.53	$225	±20
PM2.5	Particulate Matter less than 2.5 microns removed annually	37.52	±3.41	$3,309	±301
SO2	Sulfur Dioxide removed annually	37.70	±3.43	$3	±0
Total		**723.26**	**±65.81**	**$4,656**	**±424**

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 lb/ac/yr @ $/lb/yr:
CO 1.083 @ $0.67 | NO2 6.670 @ $0.25 | O3 50.493 @ $2.19 | PM10* 7.259 @ $3.13 | PM2.5 3.792 @ $88.21 | SO2 3.811 @ $0.07 (English units: lb = pounds, ac = acres)

Tree Benefit Estimates: Hydrological (English units)

Abbr.	Benefit	Amount (Kgal)	±SE	Value (USD)	±SE
AVRO	Avoided Runoff	207.13	±18.85	$1,851	±168
E	Evaporation	957.01	±87.08	N/A	N/A
I	Interception	959.53	±87.31	N/A	N/A
T	Transpiration	1,070.07	±97.37	N/A	N/A
PE	Potential Evaporation	5,413.90	±492.62	N/A	N/A
PET	Potential Evapotranspiration	3,991.06	±363.15	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/ac/yr @ $/Kgal/yr:
AVRO 20.937 @ $8.94 | E 96.738 @ N/A | I 96.993 @ N/A | T 108.167 @ N/A | PE 547.258 @ N/A | PET 403.431 @ N/A (English units: Kgal = thousands of gallons, ac = acres)

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.

Use of this tool indicates acceptance of the EULA.