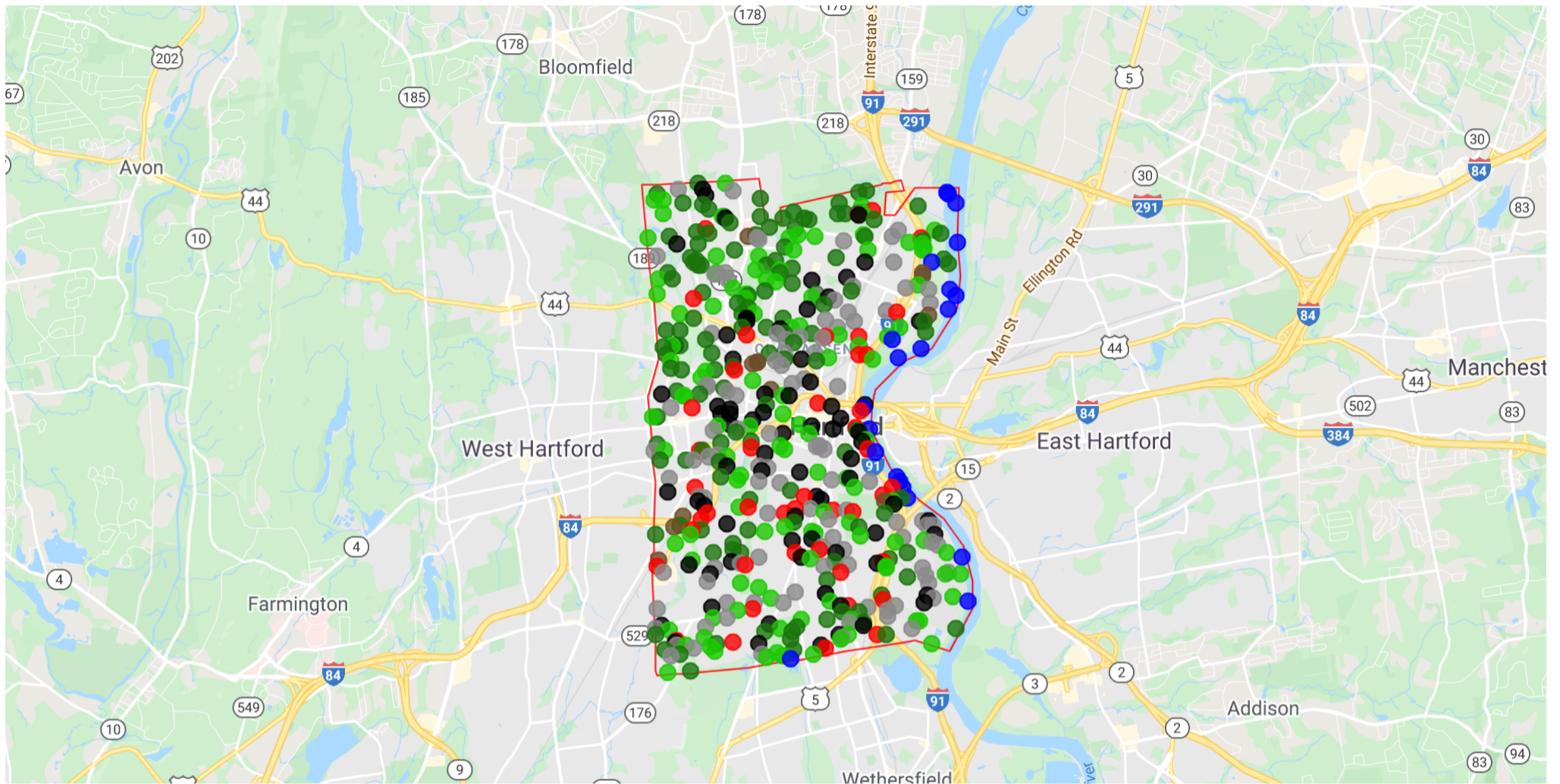


# i-Tree Canopy v7.0

## Cover Assessment and Tree Benefits Report

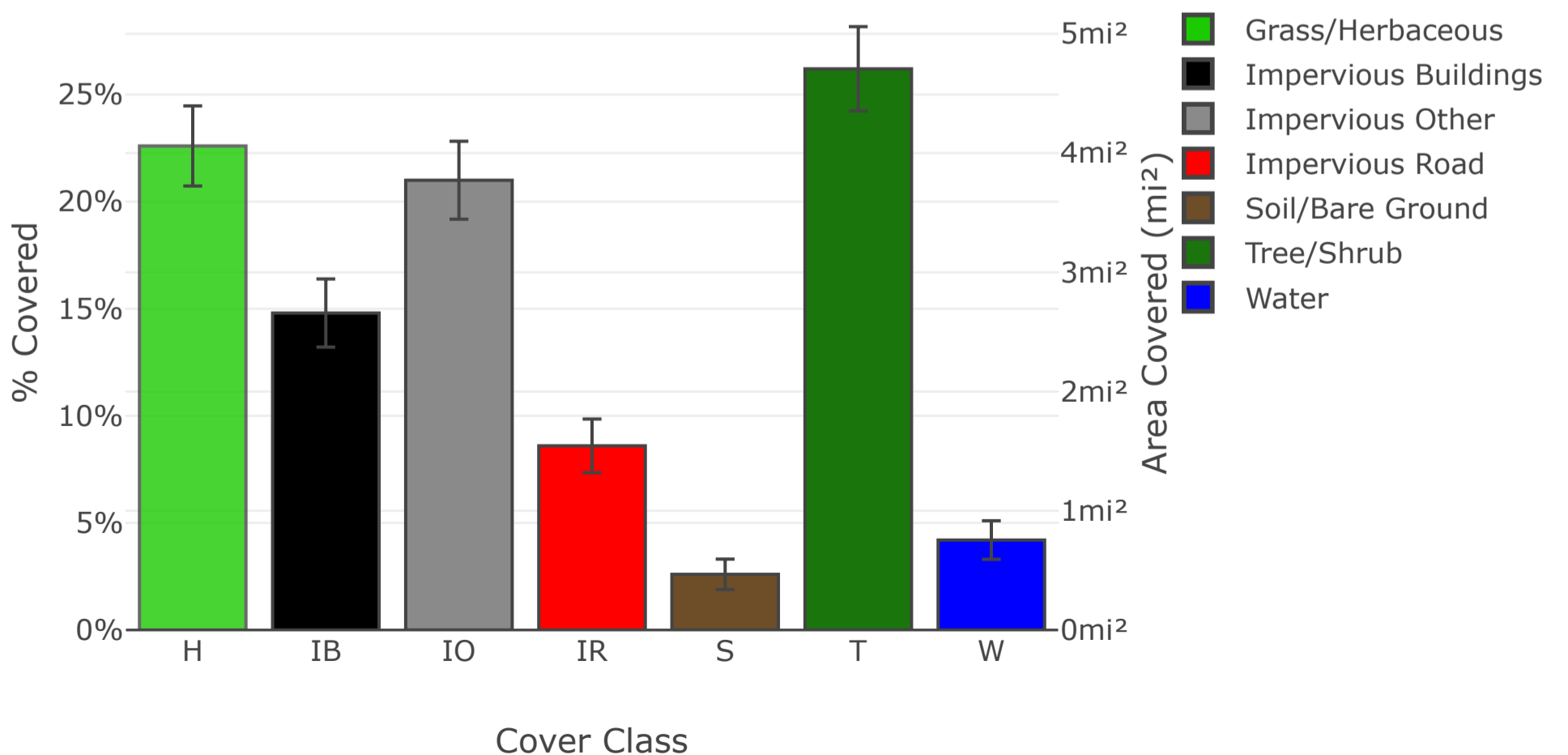
Estimated using random sampling statistics on 5/12/2020



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### Land Cover



Abbr.	Cover Class	Description	Points	% Cover ± SE	Area (mi <sup>2</sup> ) ± SE
H	Grass/Herbaceous		113	22.60 ± 1.87	4.06 ± 0.34
IB	Impervious Buildings		74	14.80 ± 1.59	2.66 ± 0.29
IO	Impervious Other		105	21.00 ± 1.82	3.78 ± 0.33
IR	Impervious Road		43	8.60 ± 1.25	1.55 ± 0.23
S	Soil/Bare Ground		13	2.60 ± 0.71	0.47 ± 0.13
T	Tree/Shrub		131	26.20 ± 1.97	4.71 ± 0.35
W	Water		21	4.20 ± 0.90	0.76 ± 0.16
<b>Total</b>			<b>500</b>	<b>100.00</b>	<b>17.98</b>

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

Description	Carbon (kT)	±SE	CO <sub>2</sub> Equiv. (kT)	±SE	Value (USD)	±SE
Squestered annually in trees	4.12	±0.31	15.09	±1.13	\$350,918	±26,339
Stored in trees (Note: this benefit is not an annual rate)	103.35	±7.76	378.94	±28.44	\$8,812,868	±661,469

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<sup>2</sup>/yr. Carbon stored is based on 21.940 kT/mi<sup>2</sup>. Carbon is valued at \$23,256.92/kT. (English units: kT = kilotons (1,000 tons), mi<sup>2</sup> = square miles)

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

Abbr.	Description	Amount (T)	±SE	Value (USD)	±SE
CO	Carbon Monoxide removed annually	2.82	±0.21	\$3,757	±282
NO <sub>2</sub>	Nitrogen Dioxide removed annually	7.98	±0.60	\$3,365	±253
O <sub>3</sub>	Ozone removed annually	56.99	±4.28	\$132,329	±9,932
PM <sub>10</sub> *	Particulate Matter greater than 2.5 microns and less than 10 microns removed annually	7.94	±0.60	\$49,758	±3,735
PM <sub>2.5</sub>	Particulate Matter less than 2.5 microns removed annually	2.73	±0.21	\$266,853	±20,029
SO <sub>2</sub>	Sulfur Dioxide removed annually	1.53	±0.11	\$207	±16
<b>Total</b>		<b>79.99</b>	<b>±6.00</b>	<b>\$456,270</b>	<b>±34,246</b>

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<sup>2</sup>/yr @ \$/T/yr:

CO 0.598 @ \$1,333.50 | NO<sub>2</sub> 1.694 @ \$421.64 | O<sub>3</sub> 12.098 @ \$2,322.15 | PM<sub>10</sub>\* 1.685 @ \$6,268.44 | PM<sub>2.5</sub> 0.580 @ \$97,620.59 | SO<sub>2</sub> 0.325 @ \$135.09 (English units: T = tons (2,000 pounds), mi<sup>2</sup> = square miles)

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

Abbr.	Benefit	Amount (Mgal)	±SE	Value (USD)	±SE
AVRO	Avoided Runoff	36.97	±2.77	\$330,359	±24,796
E	Evaporation	225.10	±16.90	N/A	N/A
I	Interception	225.36	±16.91	N/A	N/A
T	Transpiration	370.33	±27.80	N/A	N/A
PE	Potential Evaporation	1,836.17	±137.82	N/A	N/A
PET	Potential Evapotranspiration	1,363.35	±102.33	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 Mgal/mi<sup>2</sup>/yr @ \$/Mgal/yr:

AVRO 7.848 @ \$8,936.00 | E 47.787 @ N/A | I 47.843 @ N/A | T 78.619 @ N/A | PE 389.812 @ N/A | PET 289.434 @ 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.



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