

# AN ASSESSMENT OF EXISTING AND POTENTIAL URBAN TREE CANOPY



The urban forest of St. Thomas offers a lot more than greener views and patches of shade. It creates meaningful environmental, economic, and social benefits for the community. To better understand this essential infrastructure, this assessment identified urban tree canopy (UTC), possible planting area (PPA), and areas unsuitable for planting. It analyzed how they are currently distributed throughout several geographic scales, including the city boundary, parks, zoning, and dissemination areas. The results, based on land cover and tree canopy data sourced from Ecopia Tech Corporation, will allow the City to revise existing strategies and develop new ones to protect and expand the tree canopy. The maps and data from this assessment will help concentrate efforts in areas with the greatest need, where tree planting space is available, and where benefits can be realized.

## ST. THOMAS, ONTARIO



3,534 LAND HECTARES  
43,000 RESIDENTS

### URBAN TREE CANOPY



2022: 915 HECTARES

**26%**

URBAN TREE CANOPY

**25%**

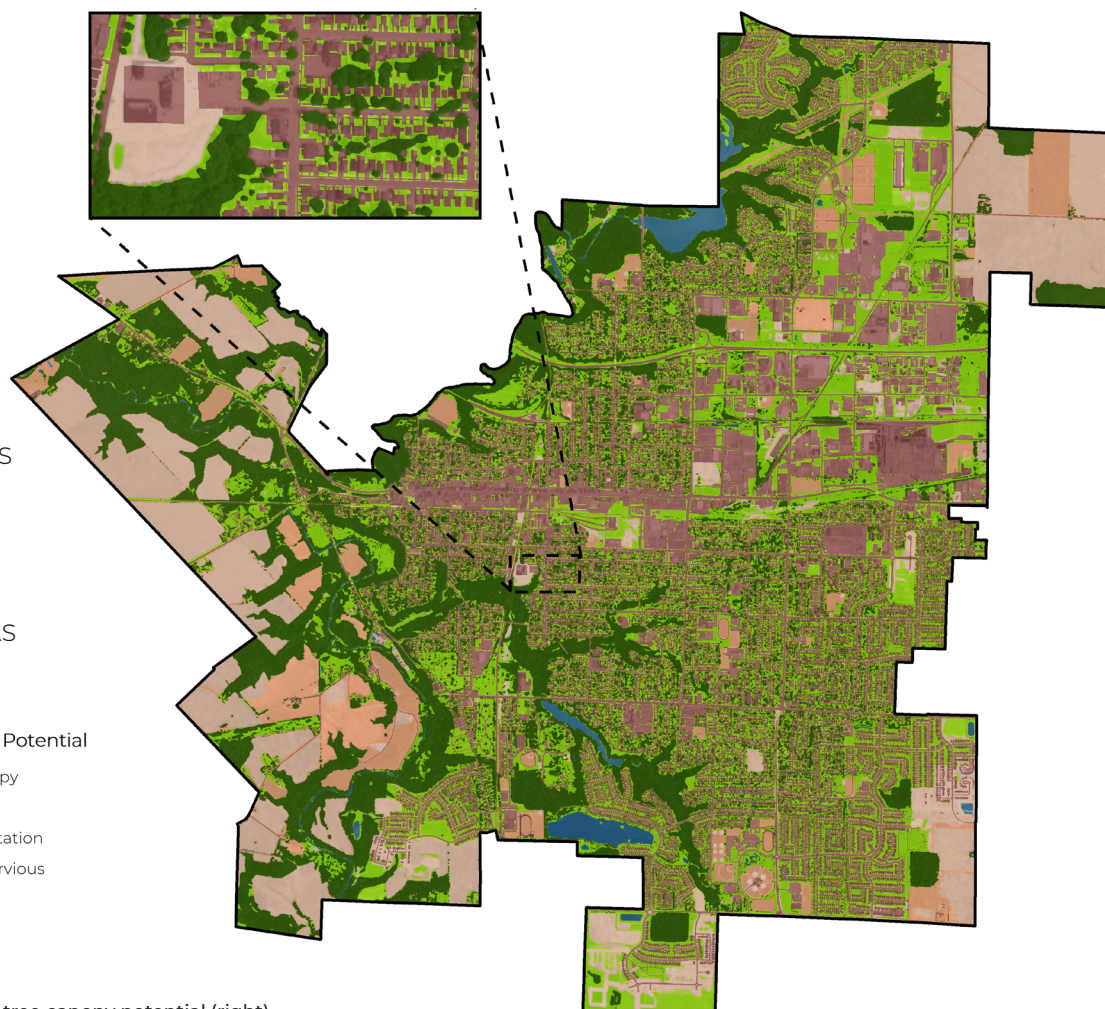
POSSIBLE PLANTING AREA

**27%**

TOTAL IMPERVIOUS AREA

**49%**

UNSUITABLE AREAS



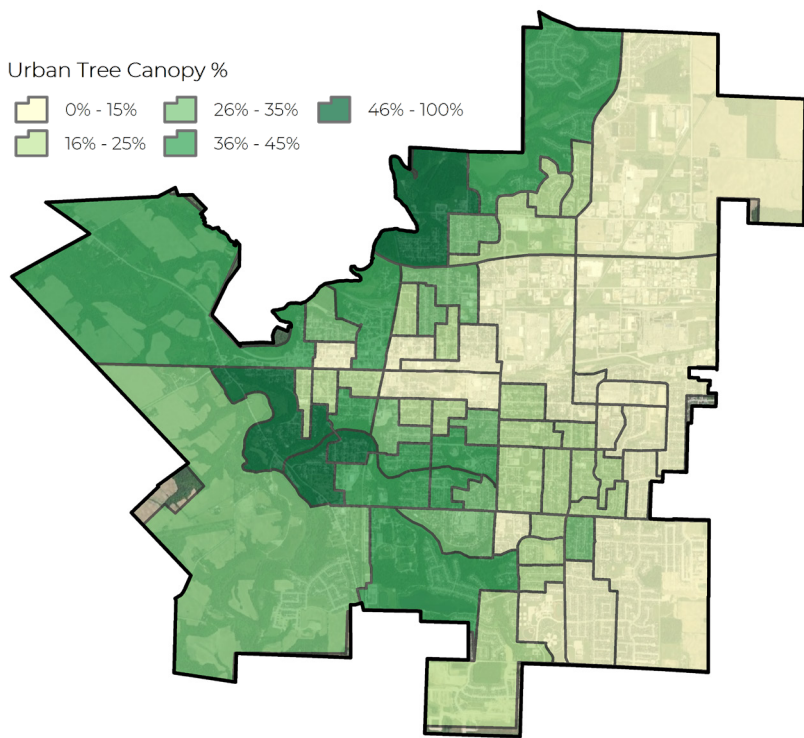
#### Urban Tree Canopy Potential

- Urban Tree Canopy
- PPA Vegetation
- Unsuitable Vegetation
- Unsuitable Impervious
- Unsuitable Soil
- Water

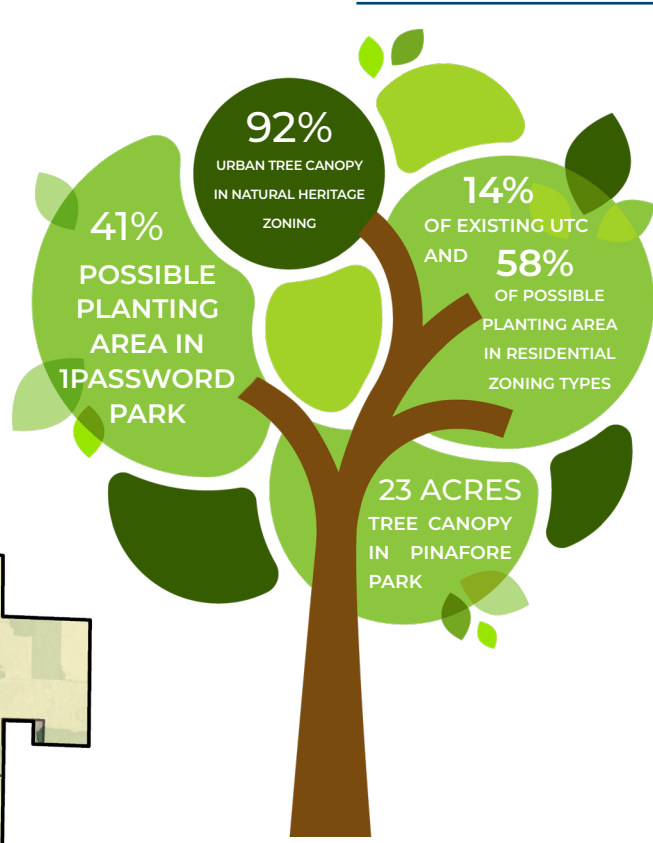
St. Thomas' 2020 urban tree canopy potential (right).

## CITYWIDE URBAN TREE CANOPY

This urban tree canopy assessment utilized the land cover data as a foundation to determine UTC and PPA throughout the City of St. Thomas. Note that the results of this study are based on land area, which excludes water bodies, as opposed to total area. Results of this study indicate that within the city boundary, 915 hectares are covered with urban tree canopy, making up 26% of the City's 3,579 total hectares; 901 hectares (25%) are covered with other vegetation where it would be possible to plant trees; and the other 1,718 hectares (49%) were considered unsuitable for tree planting. The unsuitable areas include recreational sports fields, utility corridors, agricultural fields, areas of bare soil and dry vegetation, and impervious surfaces.



Possible Planting Area (PPA) percentages in St. Thomas' dissemination areas.



Tree canopy data were also analysed for St. Thomas' dissemination areas and zoning types to see how the distribution of UTC compared at different scales. Dissemination areas are the smallest geographic unit of measure at which Canada publishes statistical data and represents between 400 and 700 people. Results indicated that 20 of 61 dissemination areas contained 10-20% canopy cover, and 14 areas had 20-30% coverage. Only two dissemination areas contained greater than 50% canopy cover. Most dissemination areas had between 20-30% and 30-40% PPA. Only one dissemination area exceeded 40% PPA.

Table 1. Land area, urban tree canopy, and possible planting area results of St. Thomas' zoning types.

Zoning Category	Land Area		Urban Tree Canopy		Possible Planting Area		
	Hectares	Hectares	%	Dist.	Hectares	%	Dist.
<b>Commercial (C1-8, C10)</b>	193	19	10%	2%	47	24%	5%
<b>Employment Lands (EL, BEL, M1)</b>	598	31	5%	3%	177	30%	20%
<b>Hazard Land (HL)</b>	321	198	62%	22%	41	13%	5%
<b>Mixed Use Development (MU)</b>	9	0.1	1%	0.01%	2	24%	0.2%
<b>Natural Heritage (NH)</b>	395	363	92%	40%	20	5%	2%
<b>Open Space &amp; Park (OS)</b>	140	40	28%	4%	63	45%	7%
<b>Residential (R1-7)</b>	1796	260	14%	28%	519	29%	58%
<b>Regional Facilities (RF)</b>	56	2	3%	0.2%	20	35%	2%
<b>Railway Tourism (RT)</b>	18	3	19%	0.4%	8	45%	1%
<b>Totals</b>	<b>3,527</b>	<b>915</b>	<b>26%</b>	<b>100%</b>	<b>897</b>	<b>25%</b>	<b>100%</b>