Bellevue Shade Tree Commission

Report to Council
3/12/24

Street Tree Inventory

Introduction

Since May 2022 when the Bellevue Borough Shade Tree Commission was reconstituted, one of its major priorities has been to complete a street tree inventory for the Borough. The purpose of the inventory was to map all street trees; document their species, size, and condition; and make recommendations to Council regarding future planting, pruning, and/or removal. The survey was performed by STC volunteers from July 2023 to February 2024 and is now complete.

What is a "Street Tree"?

Street trees are trees located in the public strip of land between the sidewalk and the street. This strip of land is known as the *"tree lawn."* The tree lawns along Bellevue's streets tend to be very narrow, often contain overhead and underground utilities, and are unsuitable for many tree species.

Methodology

The survey methodology was developed in consultation with Tree Pittsburgh staff and incorporated standard methods used in such surveys. STC volunteers walked or drove every street in the Borough, documenting and evaluating each street tree, using paper forms designed specifically for the survey. For each tree, the GPS coordinates and nearest street address were recorded and the location was plotted on Google Earth mapping. Recorded information included species; condition; height and trunk diameter; physical condition; presence/absence of overhead or underground utilities; sidewalk issues; and maintenance recommendations.

Results

Distribution

Most of the Borough's street trees are concentrated in only a few areas:

- Lincoln Avenue, west of Balph (mainly planted in connection with the recent streetscape improvement program);
- Dawson Avenue, east and west of Balph (planted as part of a 2019 tree planting program);
- North Harrison Avenue;
- South Euclid, South Bryant, and Jefferson Avenues.

Some streets (Grant, Teece, North Euclid, Watkins, Dunbar, North Balph, North Sprague) have a few scattered street trees, while many others have none. Large sections of the Borough have no street trees at all. Many trees existed in the past but were removed and not replaced. The recent tree planting programs on Lincoln Avenue and Dawson Avenue appear to be the only systematic planting programs to have occurred during the past 25+ years.

Species

A total of 185 trees were inventoried, representing 29 species. Unfortunately, the most common species is **Bradford (Callery) Pear** (49 trees, 26%), now considered to be an invasive and undesirable species. Many of these are located on North Harrison Avenue, the result of a systematic planting program several decades ago.

The second most common species is **Sycamore** (33 trees, 18%). Most are concentrated on South Euclid, South Bryant, and Jefferson Avenues. While Sycamores are excellent shade trees, they are not the best choice for narrow tree lawns due to their massive size. Nearly all of the Sycamores in Bellevue are too large for their locations and many have been severely damaged by utility trimming. Most appear to have been planted at about the same time (1920s?) and may be nearing the end of their natural life span.

There are significant numbers of **Red Maple** (22 trees, 12%), **Silver Maple** (12 trees, 6%), and **Chokecherry** (12 trees, 6%). Silver Maple generally is considered to be an undesirable species. Most of the Chokecherry are located on Lincoln Avenue.

There are a few **Sugar Maple** (6 trees, 3%), **Eastern Redbud** (6 trees, 3%), **European Linden** (5 trees, 3%), **Japanese Flowering Dogwood** (4 trees, 2%), **Japanese Tree Lilac** (4 trees, 2%), and **Persian Ironwood/Witch Hazel** (4 trees, 2%). Sugar Maple is a good shade tree but is too large for a narrow tree lawn.

The remaining 18 species are represented by only 1-3 trees each. Many of them are located on Dawson Avenue where there is a healthy diversity of species. The majority of the species are considered to be good street trees.

Condition

A total of 96 trees (52%) were evaluated as being in good condition; 53 trees (29%) are in fair condition; and 36 trees (19%) are in poor condition. Trimming and topping by utility companies is by far the most common cause of damage, but many trees exhibit significant damage from non-utility related poor pruning. Others have suffered trunk damage and broken branches from car doors and lawn mowers. Some are dying for other reasons.

Tree Lawn Characteristics

As part of the survey, STC volunteers recorded the width of tree lawns for all streets in the Borough. Tree Pittsburgh requires a width of at least 2.5 feet in any location where street trees are to be planted. Many of our streets do not meet this minimum width unless there are sidewalk cut-outs. There are relatively few streets suitable for street trees.

Recommendations

- The STC classified streets and blocks as suitable or unsuitable for future planting programs based on the width of the tree lawn and presence of overhead and underground utilities. Planting programs should focus on suitable streets and blocks. However, as a matter of policy, the STC recommends that the emphasis should be to plant trees in parks and other expansive public properties, and to encourage and assist residents in planting trees on their own private property (especially front yards) rather than to plant street trees. Yard trees will provide the same benefits without the utility and sidewalk issues.

- An exception to the above policy would include future streetscape programs along Lincoln Avenue, where tree planting is part of an overall master plan and provisions can be made for sidewalk cut-outs.

- The motto of “The Right Tree in the Right Place” should guide all future tree planting and maintenance programs in the Borough. The goal should be to expand and manage the community forest in a manner that promotes healthy trees and increases species and age diversity.

- The STC has developed a list of appropriate street trees for Bellevue based on similar lists from other communities including the City of Pittsburgh. The list should guide any future planting efforts.

- The most common street tree in Bellevue is the Bradford (Callery) Pear, considered to be an invasive and undesirable species. We do not recommend removing any existing healthy Bradford Pears, but none should be planted in the future. In fact, their sale is now banned in Pennsylvania.

- The STC identified 13 street trees that should be removed, and another 6 trees that should be considered for removal. We recommend that 5 trees are a priority for removal: one Silver Maple on Teece Avenue appears to be a safety hazard, while others are hollow, diseased, dying, or already dead. We will provide a list to DPW.

- The majority (104 of 185) of street trees are in urgent need of pruning. If DPW lacks the resources to do this, we recommend that the STC be charged with planning and implementing a systematic pruning program using trained

volunteers. Pruning is best done during the winter months when trees are dormant.

- All street tree locations should be plotted on the Borough's GIS mapping, using the GPS coordinates recorded during the inventory. We will make copies of inventory forms and mapping available to the Borough.

BELLEVUE STREET TREE INVENTORY
2/1/2024

Species	Number	Percentage	Undesirable	Native
Bradford Pear	49	26%	X	
Sycamore	33	18%		X
Red Maple	22	12%		X
Silver Maple	12	6%	X	X
Chokecherry	12	6%		X
Sugar Maple	6	3%		X
Eastern Redbud	6	3%		X
European Linden	5	3%		
Japanese Flowering Dogwood	4	2%		
Japanese Tree Lilac	4	2%		
Persian Ironwood/Witch Hazel	4	2%		X
Honey Locust	3	2%		X
Japanese Flowering Cherry	3	2%		
Norway Maple	3	2%	X	
Japanese Zelkova	2	1%		
Sweet Gum	2	1%		X
Cockspur Hawthorn	2	1%		X
Juneberry/Serviceberry	2			X
Non-native Crabapple	1			
Autumn Flowering Cherry	1			
Ginkgo	1			
Sour Cherry	1			X
Kentucky Coffee Tree	1			
Whire Oak	1			X
Pin Oak	1			X
Trident Maple	1			
Hungarian Silver Linden	1			
Rowan/Mountain Ash	1			X
Black Cherry	1			X
	185			

CONDITION		
Good	96	52%
Fair	53	29%
Poor	36	19%

RECOMMENDATIONS	
Remove	13
Possibly remove	6
Prune	104