

Summary of Findings and Recommendations
 Analysis of City of Beech Grove Tree Inventory
 2014 Update

Species Diversity

Diversity of species is very important to the overall health of the urban forest. The “Ten Percent Rule” suggests that one species comprise no more than 10% of the population. Silver Maples, Callery Pears and Red Maples each continue to comprise more than 10% of the city’s total inventory, though the percentages are lower than in 2009.

2009	Species	2014
19.59%	Silver Maple	16%
12.36%	Callery Pear	10.9%
11.26%	Red Maple	10.4%

It also recommended that no one genus should exceed 20%. Grouping all Maples, the *Acer* genus represents 35.8% of the total population, down from 42.2% in 2009.

The reduction in percentage population of Silver Maples, Callery Pears and Red Maples is due in large part to the wider variety of species planted over the past five years. More Silver Maples are also older trees in poor condition and so comprise a greater number of removals.

All three species, Silver Maple, Callery Pear and Red Maple, as well as the *Acer* genus should continue to be prohibited for new street tree plantings.

Individual species populations should be considered when selecting trees for new plantings to ensure the city continues to diversify its urban forest.

Species diversity should be recalculated on a regular schedule to ensure the city continues on its current path and that no other species exceeds the recommended 10% of total population.

Relative Age Distribution

DBH is utilized as an indicator of relative age of the total population. In 2009 this indicator suggested the total tree population is skewed towards young trees. This asymmetry is greater in 2014 due to the large number of new trees planted and the loss of older, large trees over the past five years.

2009	DBH	2014
305	<6”	472
408	6-12”	354
175	13-18”	156
98	19-24”	85
96	>24”	106

Greater balance will be achieved as the younger trees mature. Large class size trees represent 65.4% of the total population, which indicates future benefits will still be achieved in a shorter amount of time than if existing trees were predominately of a smaller class size.

Condition and Total Population

As all inventoried trees have not been reinspected for condition, exact figures are not available. However, with numerous new plantings and the removal of trees in the poorest condition over the last five years, it is appropriate to consider the overall condition improved.

Maintenance issues remain a significant challenge for the city. Fifty-Eight trees are on the priority list for removal or pruning and the 173 new trees planted over the past five years may also require pruning to ensure good structure for healthy growth to avoid more expensive future problems. It is essential to maintain existing trees for optimum health and benefits.

It is recommended that:

- Removals and maintenance tasks for trees on the Hazard List be scheduled in order by priority ranking.
- City Public Works and Parks Department workers continue to perform removals and maintenance tasks when possible to avoid the costs of contracting with a private tree service.
- The city continue to schedule work with private contractors during the winter months whenever possible to take advantage of off-season discounts.
- The tree inventory be updated continually as trees are removed, new trees are planted and condition of existing trees change.
- The city should consider utilizing a software program specifically for tree inventories to allow the Public Works Department to produce work orders and maintain the tree inventory.

It is also recommended that park trees be re-inventoried with GPS locations as opposed to the current area locations. With GPS information a map of park trees could be created, which would simplify the process of removing park trees from the inventory and allow for community activities such as tree tours or tree identification programs.

In reviewing progress since 2009, there is good news for Beech Grove's urban forest. The trend towards greater diversity is positive and will be easy to continue with appropriate choices for new tree plantings. The increase in maintenance and removal of trees in poor condition benefits the overall health of the urban forest and reduces the risk of damage and potential liability issues. Total population has increased by 72 trees, with most of these being in new locations.

It should also be noted the Parks Department has instituted a policy of planting native trees which increases their chance for survival, reduces maintenance needs and is a good example for the community. The Parks Director has also been successful in securing grant dollars and private donations to provide funding for new trees and other landscaping.