# 2017 Arborist Work Report



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# Status of Bowling Green's Urban Forest

In 2015, the Arborist analyzed Bowling Green's updated tree inventory using iTree Streets. At that time, Bowling Green's city-owned trees provided $630,000 in environmental benefits annually and intercepted 7.4 million gallons of stormwater. Every dollar spent on tree care returned $2.87 in environmental benefits. The trees had a replacement value of $6.7 million.

Currently, the City of Bowling Green has 7,609 city-owned trees. The city's tree population is smaller in physical size than ideal (**Table 1**). This is partially due to previously losing mature trees to emerald ash borer and replacing them with smaller trees. Three-quarters of the city's trees are in good condition.

**Table 1.** Trunk DSH[z] population of Bowling Green's city-owned trees.

| Diameter Class (Inches) | % of BG's Tree Population | Ideal %[1] |
|---|---|---|
| 0-8 | 55.7 | 40.0 |
| 8-16 | 24.4 | 30.0 |
| 16-24 | 11.4 | 20.0 |
| 24+ | 8.5 | 10.0 |

[z] Diameter at standard height (DSH) is the trunk diameter at 4.5 feet above ground

# Tree Work

## Electrical Line Clearance

Nelson Tree Service performed contracted electrical line clearance for Bowling Green's Electric Division mainly in Wards 2 and 3. Including work by city crews, trees were pruned and/or removed to achieve adequate clearance from electric lines at 328 addresses.

## Right-of-Ways, Parks, and Cemetery

In 2017, on city property 165 trees were planted; 145 trees were removed; 1,501 trees were pruned; and 4,606 trees inspected (**Table 2**).

**Table 2.** Tree work in the city right-of-way, cemetery, parks, and other City property.

|  | Planted | Removed | Pruned | Inspected |
|---|---|---|---|---|
| # of Trees | 165 | 145 | 1,501 | 4,606 |

# Policy and Management

## Tree Selection Guidelines

Emerald ash borer highlighted the need to create a diverse urban forest. Too many of one species, genus, or family of trees increases the risk that pests will damage a large number of trees in the community. Should this happen, the city would face increased staff time and expense to manage the problem. Currently it is recommended a community's urban tree population consist of no more than 5% of the same species, 10% of the same genus, and 15% of the same family.

[1] Leff, Michael. 2016. The Sustainable Urban Forest. Davey Institute/USDA Forest Service, Philadelphia, PA.

Analyzing Bowling Green's existing city tree population showed too many maple and Rosaceous (crabapple, pear, serviceberry, and cherry) trees are growing on city property. I created tree selection guidelines to avoid planting these trees until natural attrition brings their numbers within the appropriate range. To meet tree diversity goals, I created a list of alternative trees to plant. When planning future tree plantings, I will match trees from this list with site conditions, existing tree populations in the vicinity, and citizen requests.

## Tree Risk Management Plan

Communities have a duty to care reasonably and prudently for their trees. Having a tree risk management plan is a way to describe the standard of care a community provides for their trees. By having a standard of care and documenting its achievement, communities can reduce their liability should a tree fail and damage property or cause physical injury.

I created a Tree Risk Management Plan for Bowling Green to detail our current urban forest management practices and describe our tree inspection procedure. Tree risk ratings were created for public trees on every city block and property based upon tree species present, tree size, tree condition, and the frequency people and property are present (**Image 1**). The risk ratings determined the frequency the trees on the block or property are inspected with high risk trees being inspected more frequently. In 2017, I inspected 4,606 city trees. These inspection records were entered into the tree inventory. I created work plans to prioritize work to higher risk trees to lower their risk through pruning or removal. Inspections will continue each year according to the schedule in the plan.
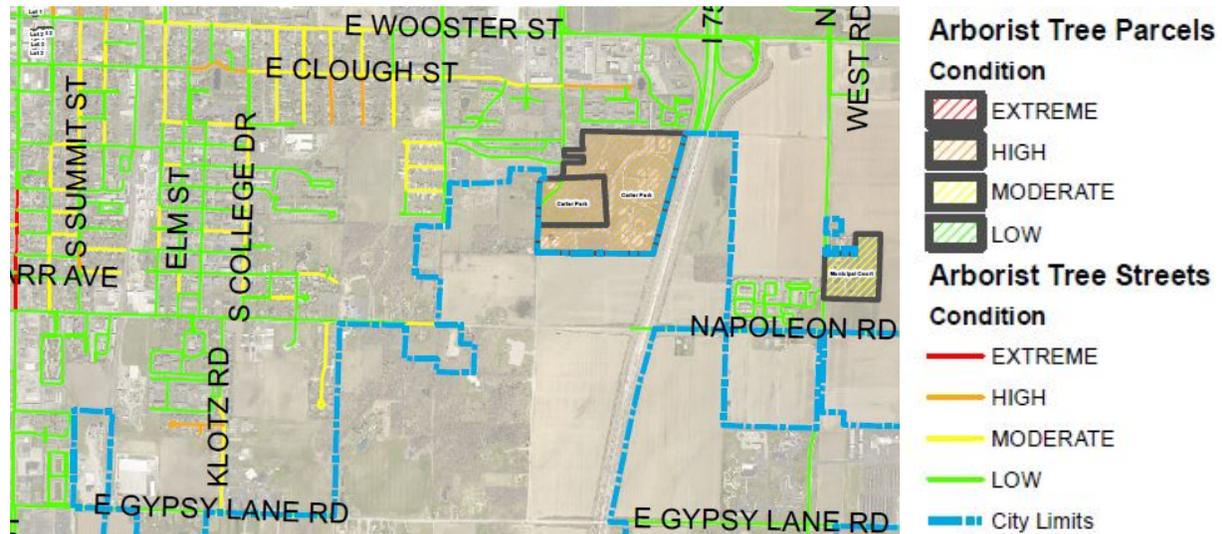


**Image 1.** Tree Risk Map for Ward 2

# Public Relations

### Tree Benefit Tags

Tree benefit tags were displayed on 10 large trees on city property to raise public awareness of the environmental benefits city trees provide (**Photo 1**). Through city issued press releases, local and regional media picked up on the event. Stories ran in local print and online media and WTOL filmed a segment that aired during the news.

### Tree City USA and Growth Award

On May 3 Bowling Green received the Tree City USA Award for the 37th consecutive year. In addition, the city also received their 23rd Growth Award for growing their tree program. This is the most Growth Awards of any community in Ohio.



**Photo 1.** Tree tag hung on a white oak in City Park showing the value of the annual environmental benefits the tree provides.

### Arbor Day

On May 5 the Bowling Green Tree Commission celebrated Arbor Day at Crim Elementary with the Fifth Grade class. Students created posters based upon the theme "My Favorite Tree in Bowling Green" (**Photo 2**). Thayer Family Dealerships donated Downtown Dollars that were awarded to the top three artists in the poster contest.



**Photo 2.** Mayor Edwards and the Bowling Green Tree Commission with Crim Elementary fifth grade students.

# Plans for 2018

Below are several large projects we will focus on in 2018:

- We will clear trees from electrical lines in Ward 1 and along rural electric lines. This will help reduce electric outages caused by trees damaging electric lines.

- We will work with the Utility Department and Electric Division to bid a new electrical line clearance contract. Our current contract expires at the end of 2018.

- We will remove several overmature silver maple trees in poor condition and replace them with appropriate tree species.

- I will create an Urban Forest Storm Response and Recovery Plan. This will detail how we will respond to minor, major, and catastrophic storms. In the case of a catastrophic storm, the plan should be us maintain eligibility for reimbursement should FEMA funds become available.