

**IT'S TREE TIME!**

**Update – Churchill**  
**Borough Tree Committee**  
by Ken Balkey, Chair

**Blackridge Civic  
Association Clubhouse**

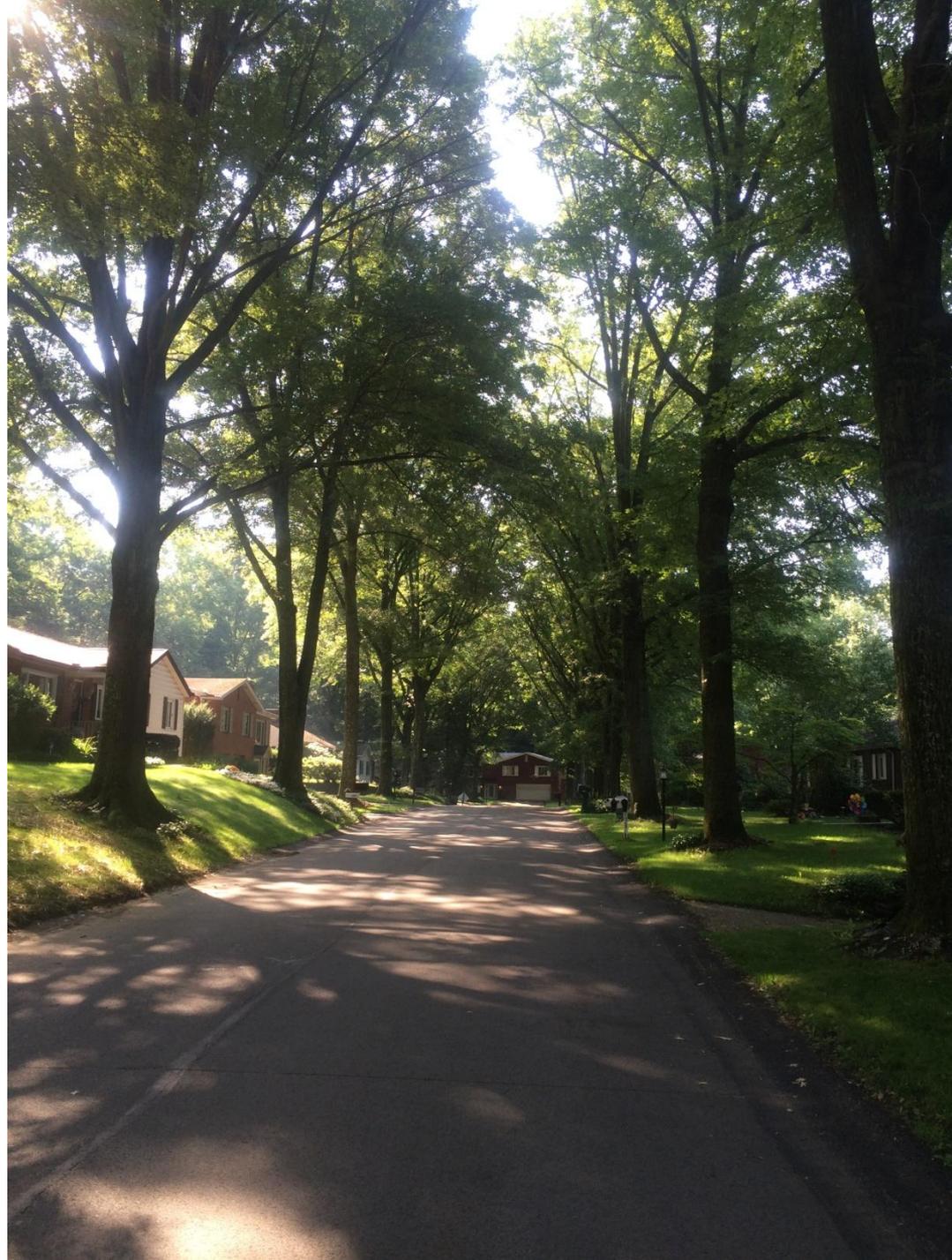
**February 19, 2020**



# **Update - Churchill Borough Tree Committee – Agenda**

- 1. Benefits of Maintaining and Enhancing Trees**
- 2. Tree Situation Worldwide, U.S., PA, Allegheny County, Churchill and Nearby Municipalities**
- 3. Implementation of Tree Committee Ordinance**
- 4. Next Steps Moving Forward**

**Comments and Discussion – All**



**Churchill Borough Tree  
Committee Contributors**  
*(May 2018 – Present)*

**District 1 – *Judy Diorio(\*)***

**District 2 – Ruth Anne & *Ken Balkey(\*)***

**District 3 – Eileen & *Barry Kisloff(\*)***

**District 4 – Ilona Tassone**

**Advisors – Dr. Joan Gottlieb  
Mayor Paul Gamrat**

**Council – Diane Law  
Norma Greco  
Adam McDowell**

***(\*) Official Tree Committee members  
(June 2019 – Present)***



# 1. Benefits of Maintaining & Enhancing Trees

## Environmental Benefits

- A large tree can provide a day's supply of oxygen for four people
- A large tree can absorb up to 100 gallons of water in a day
- A tree can absorb up to 48 lbs of CO<sub>2</sub> per year and sequester 1 ton of CO<sub>2</sub> by 40 years of age
- Trees help our soil remain healthy by reducing soil erosion and are integral part of storm water management
- Trees provide cooling effect and act as natural air conditioner
- Trees promote wildlife diversity



Ref: [www.arboday.org](http://www.arboday.org), [www.treepittsburgh.org](http://www.treepittsburgh.org), [www.treecanopy.org](http://www.treecanopy.org), [www.treesaregood.org](http://www.treesaregood.org),  
[www.arborentimentalalliance.com](http://www.arborentimentalalliance.com), <https://projects.ncsu.edu/project/treesofstrength/treefact.htm>,  
“Does Money Grow on Trees?”- Borough of Churchill newsletter, Oct. 2018 - [www.churchillborough.com](http://www.churchillborough.com)

# Benefits of Maintaining and Enhancing Trees

## Personal & Social Benefits

- Trees provide mental and physical health benefits & promote healing
- Trees shield us from ultra-violet rays and protect from skin cancer
- Healthy trees increase property values with a large tree appraised between \$1,000 and \$10,000
- Trees provide privacy, provide a barrier to noise, and complement architecture
- Trees promote community pride and make communities more livable



Ref: [www.arboday.org](http://www.arboday.org), [www.treepittsburgh.org](http://www.treepittsburgh.org), [www.treecanopy.org](http://www.treecanopy.org), [www.treesaregood.org](http://www.treesaregood.org),  
[www.arborentimentalalliance.com](http://www.arborentimentalalliance.com), <https://projects.ncsu.edu/project/treesofstrength/treefact.htm>,  
“Does Money Grow on Trees?”- Borough of Churchill newsletter, Oct. 2018 - [www.churchillborough.com](http://www.churchillborough.com)

# Connections Between Trees and Human Health

***2006: A street in Toledo, Ohio, prior to an infestation of emerald ash borer***



***2009: The same street in Toledo, Ohio, after the emerald ash borer arrived***



“Results show that the spread of the emerald ash borer across 15 states was associated with an additional 15,000 deaths from cardiovascular disease and an additional 6,000 deaths from lower respiratory disease. Human mortality increased the longer the emerald ash borer was present in the environment and killing trees.”

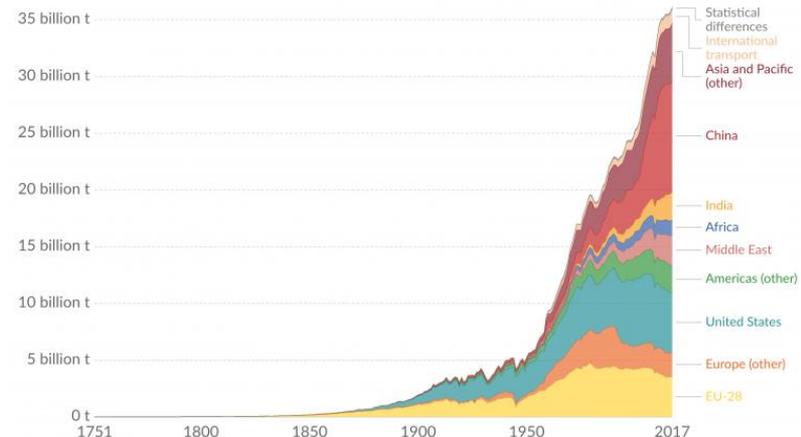
*Ref: Marie Oliver (writer) and Geoffrey H. Donovan, PhD, et al, “Exploring Connections Between Trees and Human Health,” Science Findings, U.S. Department of Agriculture – Forest Service, Jan/Feb 2014*

# 2. Worldwide Tree Situation

- Estimate more than 3 trillion trees
- World's forests absorb ~40% of the 38 billion tonnes of manmade CO<sub>2</sub> / year
- 3.5 – 7 billion trees cut down each year; Global tree count has fallen by almost 50% by human civilization
- Contributors to Forest Loss:
  - Timber harvesting – 37%
  - Agricultural expansion – 28%
  - Wildfires – 21%
  - Roads for mining/extraction and pipelines and power lines – 12%
  - Expansion of roads – 2%
- **One Trillion Trees** (by 2050) initiative launched at World Economic Forum 2020 to increase carbon absorption  
[www.trilliontrees.org](http://www.trilliontrees.org)



Annual total CO<sub>2</sub> emissions, by world region



Source: Carbon Dioxide Information Analysis Center (CDIAC); Global Carbon Project (GCP)  
Note: The difference between the global estimate and the sum of national totals is labeled "Statistical differences".  
OurWorldInData.org/co2-and-other-greenhouse-gas-emissions • CC BY

Ref: Justin Worland, "Here's How Many Trees Humans Cut Down Each Year," *TIME*, September 2, 2015 and "How Many Trees are Cut Down Every Year," by Rainforest Action Network, March 6, 2017; Work by Dr. Simon Lewis, University of Leeds, August 18, 2011; Carbon Dioxide Information Analysis Center

## Oldest Tree in The World

- ***The Methuselah Tree***  
bristlecone pine tree  
(*Pinus longaeva*)
- **Deep in the White Mountains of the Inyo Valley in eastern California at secret location**
- **4,850 years old and still living!**

*Ref: Meet California's Methuselah Tree, The Oldest Tree In The World by Katie Serena, Published May 13, 2019*

<https://allthatsinteresting.com/oldest-tree-in-the-world-methuselah-tree>



# U.S. Cities Tree Situation

- Urban areas in U.S. lose 36 million trees each year
- Tree cover in urban areas declining at rate of ~175,000 acres per year
- 40% of new impervious surfaces (e.g., roads & buildings) are in areas where trees used to grow
- 1% of tree cover across cities lost in just 5 years (2009-2014)
- As 80% of Americans live in urban areas, tree loss has environmental, social and economic ramifications
- Tree loss likely to continue unless forest management and/or urban development policies are altered



*Ref: Naomi Larsson, "U.S. Cities Losing 36 Million Trees a Year, Researchers find," The Guardian, May 10, 2018*

# Pennsylvania Tree Coverage

- 200+ years ago, PA landscape completely forested primarily with hemlock, white pine, oaks, maples, hickories and over 100 other species
- 56% of PA – nearly 17 million acres – remains forested; 2.2 million acres is part of state forest system
- PA lost 321,000 acres of forest land and gained 399,000 acres (early successional development) from 2009 to 2014
- Since 2008, Western Pennsylvania Conservancy has planted about 100,000 trees in our region including **TreeVitalize** Pittsburgh effort



*Ref: "Pennsylvania Forests 2014," U.S. Department of Agriculture, May 2017 and "Conserve," Western Pennsylvania Conservancy, Volume LXV, Winter 2019*

# Oldest Tree in PA

- *The Sacred Oak*
- Located in the Oley Valley in Berks County east of Reading
- 500-yr-old Chinkapin Oak

Ref: *The Sacred Oak (Legend)*  
[https://en.wikipedia.org/wiki/Sacred\\_Oak](https://en.wikipedia.org/wiki/Sacred_Oak) and  
<http://www.pabigtrees.com/News.aspx>



# Allegheny County Tree Situation

- Over 11,000 acres of tree canopy were lost from 2010 – 2015; By comparison, North & South Parks, Roundhill Park & Harrison Hills comprise 12,000 acres!
- Most tree loss from –
  - *Widening of PA Turnpike*
  - *Land clearing for development*
  - *Tree removal in people's backyards*
- Pittsburgh Shade Tree Commission is working to change tree protection and development codes for the city
- Non-profit *Tree Pittsburgh* has grant from Pittsburgh Foundation to work with municipalities to rewrite tree ordinances
- Working with partners, *Tree Pittsburgh* has planted 50,000 trees in Allegheny County in 10+ years



*(By Paul Muschick/The Morning Call)*



*(Highland Estates Development on former Highland CC)*

*Ref: Kara Holsopple, "Where Are The Trees Going in Allegheny County?" - May 10, 2018*  
[www.alleghenyfront.org](http://www.alleghenyfront.org)

# Oldest Tree in Allegheny County

## ➤ *Pine Tree*

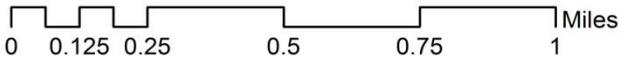
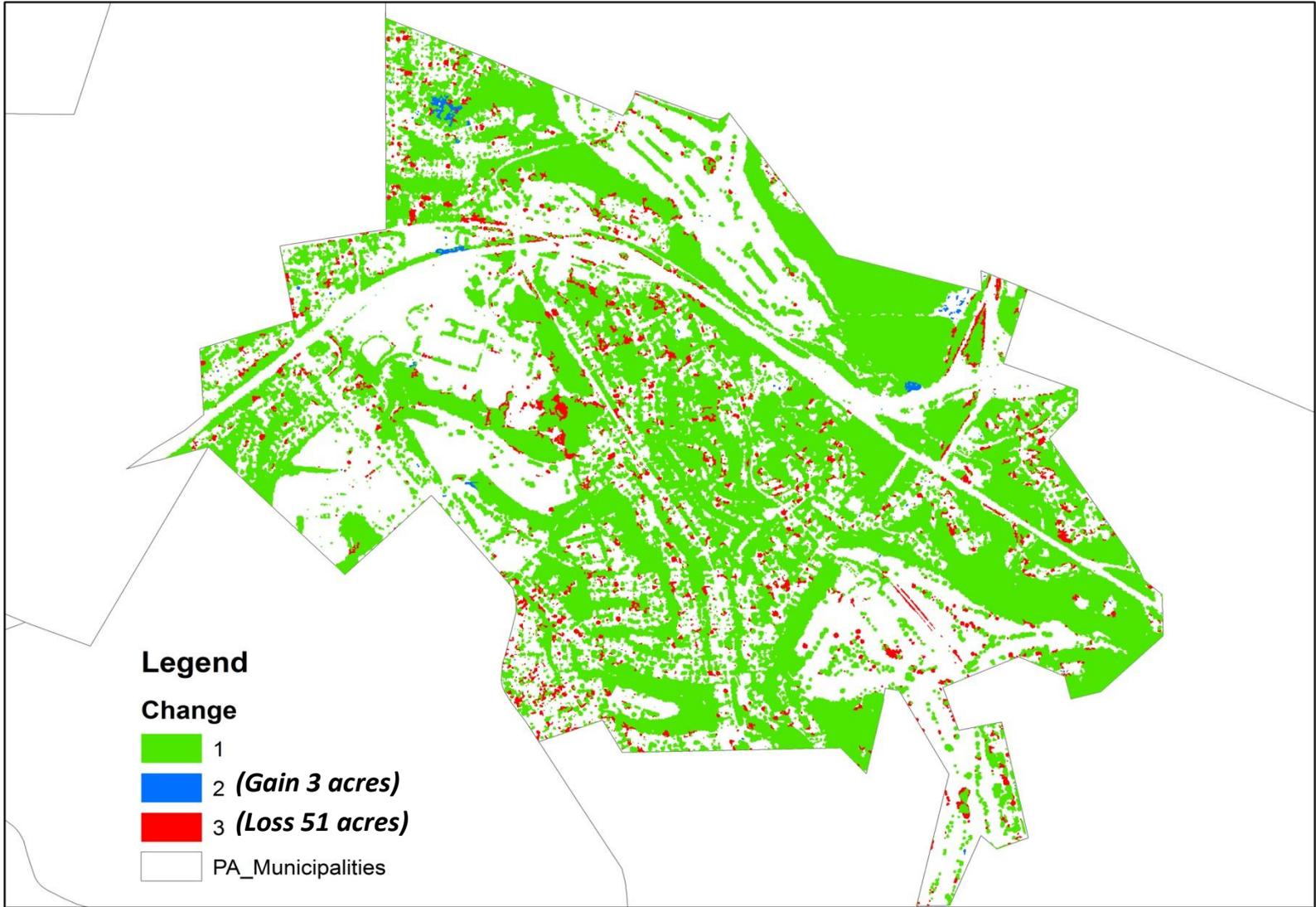
- Located in Richland Township Community Park, an 80-acre park located in Bakerstown
- 413 year old black ash tree that was lost in 2010

<https://patch.com/pennsylvania/pine-richland/a-walk-in-the-park-5>



# Churchill Tree Canopy Change 2010 to 2015

(740 acres) (692 acres)

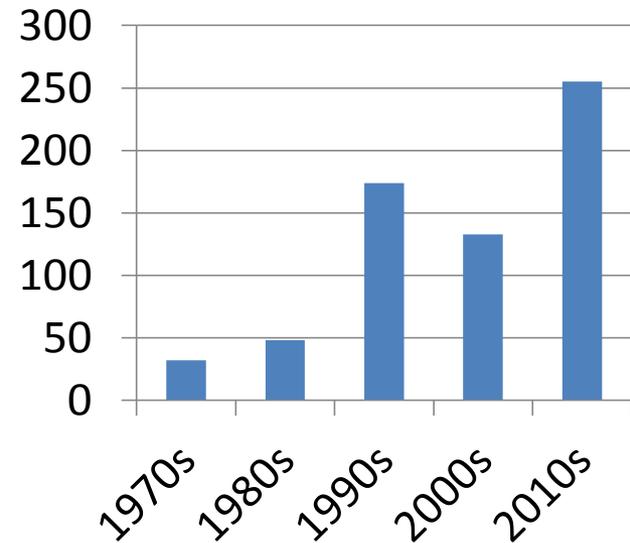


Map Generated Courtesy of Matthew Erb, Director of Forestry, Tree Pittsburgh

# Churchill Borough Tree Situation

- Scores of large mature trees removed by property owners or lost from disease or storms throughout the borough
  - *2010 Tree Canopy: 740 Acres (53%)*
  - *2015 Tree Canopy: 692 Acres (49.5%)*
  - *2019 ~30 Large Trees Removed (~0.8%)*
- Three costly ***oak wilt*** outbreaks have occurred over last decade
- New storm water runoff issues have arisen at several locations in past couple of years
- Potential exists for significant tree removal at large sites for development
- Limited new planting – 30+ new trees recently planted near Pace School; new tree planting occurred at Bullock Pens Park several years ago
- ***Opportunity exists for new planting***

Thunderstorms Per Decade



Ref: National Weather Service

James Hilston/Post-Gazette, Oct. 15, 2017

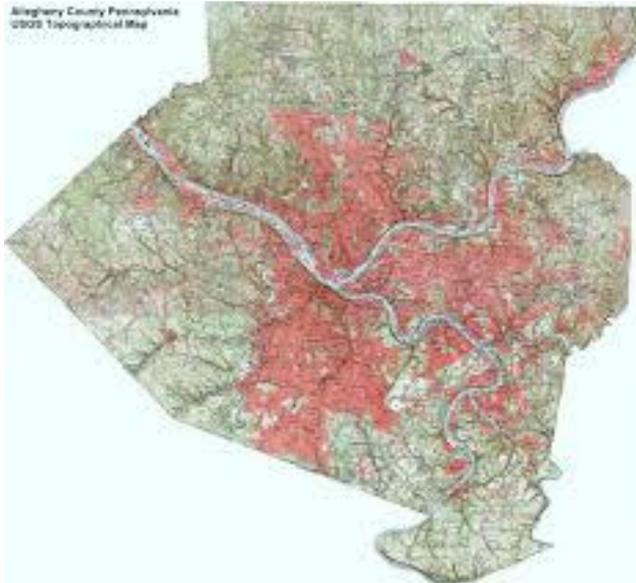


# Pittsburgh Magazine – Ranking Suburbia Grading 130 Municipalities in Allegheny County

## Five Categories / 28 Data Points

- Housing
- **Neighborhood**
- Schools
- Safety
- Traffic

[www.pittsburghmagazine.com/by-the-numbers-ranking-pittsburghs-suburbs/](http://www.pittsburghmagazine.com/by-the-numbers-ranking-pittsburghs-suburbs/)  
September 19, 2019



## Land Area Under Tree Cover

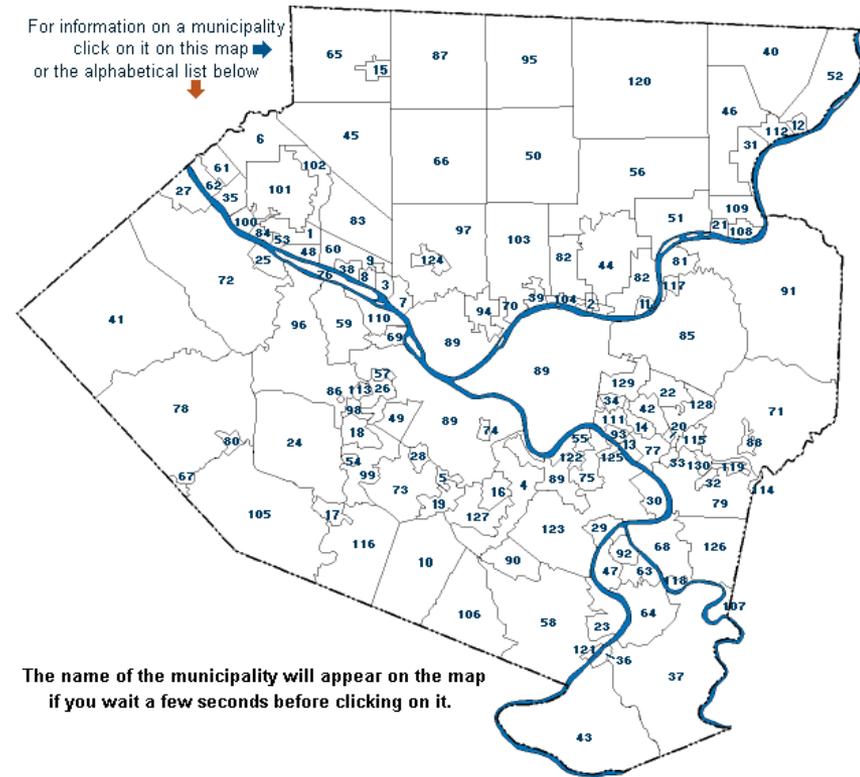
1 – Kilbuck Township	78%
8 – Fox Chapel	73%
<b>37 – Penn Hills</b>	<b>58%</b>
41 – Murrysville	57%
44 – Wilkins	56%
46 – Monroeville	55%
52 – Forest Hills	54%
<b>58 – Churchill</b>	<b>51%</b>
59 – Braddock Hills	50%
64 – Mt. Lebanon	48%
69 – Edgewood	46%
78 – Pitcairn	43%
83 – Wilkinsburg	40%
85 – Oakmont	38%
90 – Turtle Creek	37%
91 – Chalfant	37%
97 – North Braddock	35%
103 – Swissvale	33%
113 – Verona	25%
123 – Rankin	17%
129 – Braddock	10%

# Tree Ordinances of Other Municipalities and Key Resources

- Municipalities that have tree ordinances and tree commissions or committees:
  - *City of Pittsburgh*
  - *Edgewood Borough*
  - *Forest Hills Borough*
  - *Fox Chapel Borough(\*)*
  - *Oakmont Borough*
  - *Penn Hills Borough*
  - *Wilksburg Borough*
- Key Resources supporting tree protection efforts in municipalities:
  - *Tree Pittsburgh*
  - *PA Department of Forestry*

(\*) Includes trees on public and private property

*Note: Municipality of Monroeville has comprehensive storm water management ordinance*



**“Green Infrastructure”**

Ref: *Borough News*, September 2018  
[www.boroughs.org](http://www.boroughs.org)

# **3. Key Elements of Ordinance to Establish a Churchill Tree Committee**

*(Refer to [www.churchillborough.com](http://www.churchillborough.com) for full ordinance;  
go to Administration – Borough Ordinances tab,  
select 751-Tree Ordinance.Pdf approved 10-June-2019)*

# § 286-5 Borough of Churchill Tree Committee



## I. Membership

- Borough Council to appoint 3-to-5 members to 3-year terms
- Initial members are Ken Balkey, Judy Diorio and Barry Kisloff
- One or more members with horticultural background

## II. Goal

The goal of the Tree Committee shall be to:

- (a) Advise the Borough in the maintenance and enhancement of the tree population of the Borough's public spaces, rights-of-way, streets, public playgrounds, highways and parks in the Borough
- (b) Establish an educational program regarding the value of trees to the community's environment and property value

- ## III. Findings and recommendations of the Tree Committee shall be reported to the Borough Council on a quarterly basis

# Other Key Elements of Tree Ordinance



- § 286-6 Tree Permitting –** Permit from Borough Manager required before removal or planting of tree in public right-of-way (***Residents have begun to request permits***)  
All removal and corrective activities, e.g., ***trimming, pruning or altering trees*** in public right of way, shall be performed by duly licensed and bonded tree service (***Currently under review and proposed revision drafted***)
- § 286-7 Trees Overhanging – Streets** – No one shall plant or allow to grow any trees, shrubs or other vegetation encroaching above or into the traveled portion of any streets or highways without an adequate clearance and that do not obstruct sight lines or otherwise create a hazardous condition.
- § 286-8 Penalties –** A range of fines could be imposed if any provisions of the ordinance are violated. Borough can take action for any immediate health and safety hazards from trees, etc.

# § 286-9 Definitions

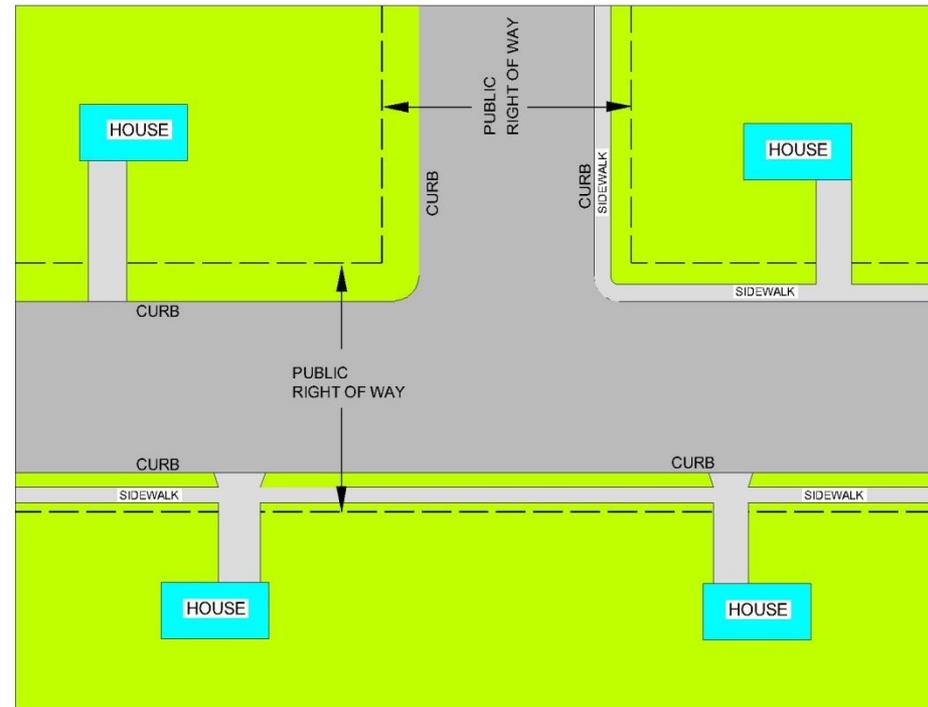
**Committee:** The duly appointed members of the Tree Committee of the Borough of Churchill.

**Public Right-of-Way:** The area of any public street, road, highway or other publicly held thoroughfare that has been designated by law for public use as a right-of-way.

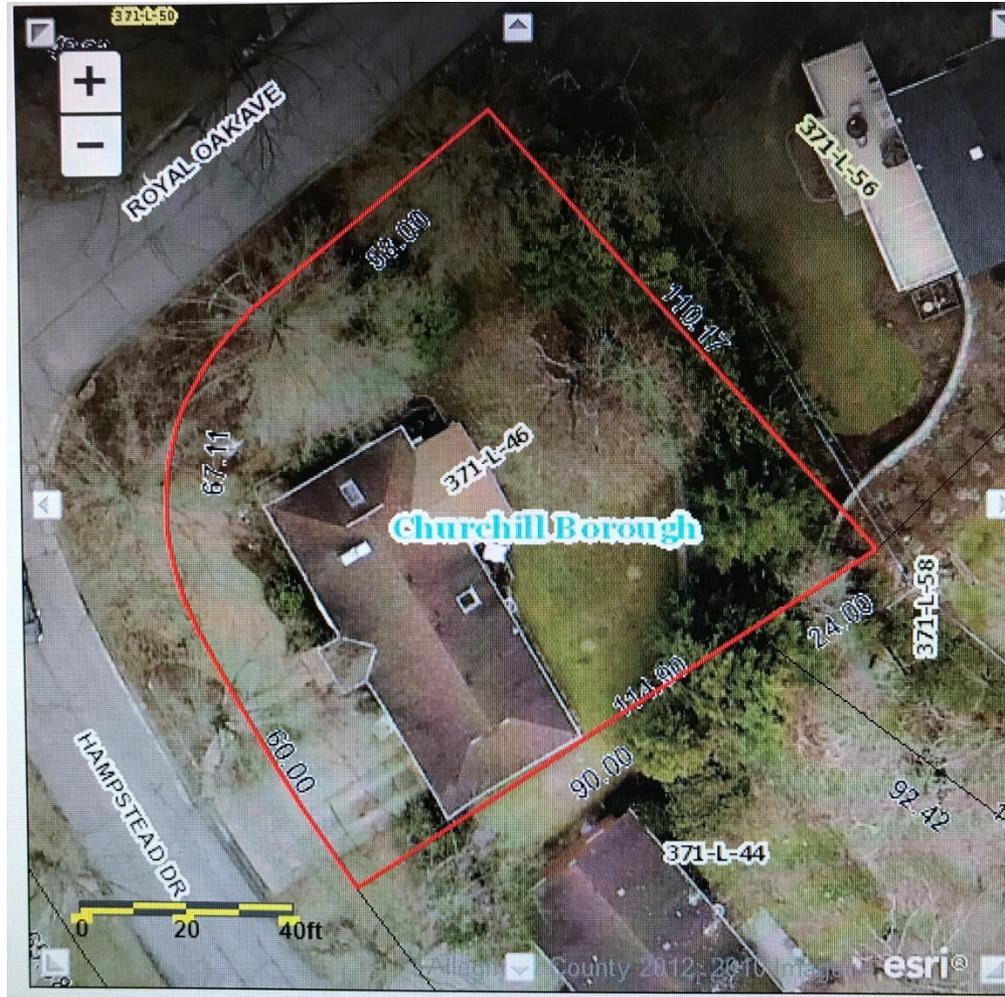
**Street:** Any public street, avenue, road, drive, circle, square, alley, way, highway, sidewalk or other public place located in the Borough, as established within the ordained rights-of-way.

**Tree:** When used by itself, any woody plant which generally includes those having a single main stem which grows to a mature height of over ten (10) feet.

## Examples of Public Right-of-Way



# Example: Determining Right-of-Way Using Allegheny County Real Estate Portal



<http://www2.county.allegheny.pa.us/RealEstate/Search.aspx>

# Some Key Items Completed

## Educational Efforts

- Three public workshops held – Fall 2018, Spring 2019 and Today
- Two articles published in Borough of Churchill newsletter on benefits of trees and the new tree ordinance
- Hosted booth at Churchill Community Day – August 2019
- Attended Bartlett Tree Experts Seminar to interface with Tree Pittsburgh, other tree commissions, and tree experts – October 2019
- Created database and mailing list to notify ~100 tree service companies of new tree ordinance – Fall 2019

## Advising the Borough

- Interface regularly with Borough Manager and Council on recent tree removals and outdated pruning
- Interfaced with state and county officials on public right-of-way determination
- Investigating grant opportunities to support tree planting



## 4. Next Steps Moving Forward

- Develop tree inventory and state of trees in public rights-of-way and public spaces; Inform affected residents
- Seek grant opportunities and establish interfaces to support tree planting:
  - Churchill public spaces
  - Woodland Hills School District
  - Large property owners
- Education efforts – future workshops, articles and work with local schools



# Comments and Discussion

