

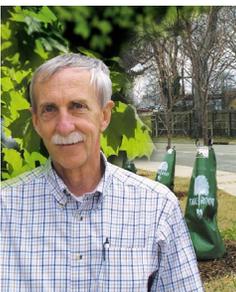
2013 State of the Trees Report

Department of Public Works
Division of Urban Forestry



2013 – A Forester’s Perspective

2013 flew by and was gone in the twinkling of an eye. The year was characterized by an abundance of rainfall during the normally dry summer months, a fall drought, and more rain in the fall and early winter. We ended up with a surplus of more than 16 inches. And the trees loved it! The summer foliage was lush and green for the entire summer. And best of all we did not need to do any supplemental watering. The massive Osage Orange at the Hamilton County court-



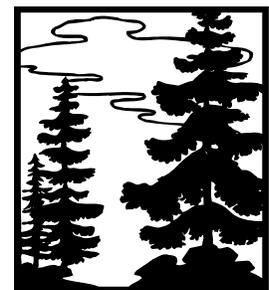
Gene Hyde is editor of this publication.

house blew over and we were asked to help with the fair and transparent disposal of the wood. All of the tree from small souvenir-sized pieces to slices of the 60” trunk were given away at one of our wood lotteries. The dreaded Emerald Ash Borer was found in

Chattanooga for the first time in June which triggered a quarantine on ash products leaving the county unless certain procedures were followed to kill the larvae of these pests. A management plan was written to deal with these destructive insects that has nine active action steps. We were asked to remove certain species of trees at Enterprise South to assist with the conservation of an endangered species: the Indiana bat. The populations of these species and many other species of bats has been decimated by a fungal disease called white nose syndrome. This year we lost our three-man Asplundh crew but we gained a three-man in-house crew. The City Forester was asked to provide technical assistance as new provisions are being written for the City’s new runoff reduction standards. And finally the newly written Urban Forestry Management Plan was submitted for printing and will be ready in early 2014. More on these stories is contained within this report.

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Arbor Day at the National Cemetery

Chattanooga celebrated a very special Arbor Day on March 1. The event was held on a bitterly cold and windy day inside the National Cemetery with two goals in mind:

1. Replace nearly 100 mature trees that were either blown over or severely damaged during the storms and tornadoes in 2011 and,
2. Honor the service of the veterans of America’s conflicts and wars beginning with the American Revolutionary War in the 1700’s.

Re-enactors and veterans helped to plant the trees which consisted of oaks, elms, dogwoods, lindens, tulip poplars, redbuds, red cedars, river birch, and a saucer magnolia.

In all, a total of 84 trees were planted by volunteers representing 16 different species. The event was enlivened by re-enactors from every conflict with the exception of the Civil War. During the ceremony Chattanooga was recognized as a Tree City Community for the 23rd consecutive year.



Re-enactors help to plant trees. M. Cornelius photo.

Special Points of interest in 2013:

- Chattanooga was a “Tree City” for the 23th year.
- Arbor Day was held at the Chattanooga National Cemetery on March 1.
- At the end of 2013 there was no backlog of Service Requests.

Tree Planting in 2013 and the E&CD Endowment Grant

In 2009 the City of Chattanooga received a \$200,000 Endowment Grant from the Tennessee Department of Economic and Community Development for tree planting. The trees purchased and planted with these funds were intended as mitigation plantings to compensate for all of the trees that were removed at the new Volkswagen assembly plant in the Enterprise South Industrial Park. These planting funds were shared with the local departments of Parks as well as Economic and Community Development. While the final tally isn't yet in it appears that during the life of the grant a total of nearly 2,000 trees were planted in various streetscapes, neighborhoods, and tree wells around the City. There were a total of 69 species of trees and two species of shrubs utilized in the planting schemes.



Volkswagen volunteers preparing a planting site on a cold day on February 16, 2013. Gene Hyde photo.

Moreover, during the 2013 planting season a total of 379 trees representing 41 species and cultivars were planted by the Urban Forestry operations at a cost of \$50,387.

A total of 21 trees representing 10 species and cultivars were planted by the Parks Department in Coolidge Park at a cost of \$1,294.



Main Terrain Art Park.. Gene Hyde photo.

A total of 269 plants representing four species and cultivars were planted as part of the development of the Main Terrain Art Park at a cost of \$43,621.



The Wood Lotteries

Our most recent lottery was held in March, 2013 and featured a very notable tree: the 150 year-old Osage-orange that uprooted on the lawn of the Hamilton County Courthouse. At the request of County Mayor Coppinger sections of the trunk and branches of this large tree were placed in the lottery and attracted interest from dozens of people wanting a piece of



Coolidge Park Elm prior to removal. Wes Schultz photograph

history. The very first wood lottery was held in February, 2007. This followed the removal of the majestic elm in Coolidge Park in August, 2006. A very powerful storm had swept through the Chattanooga area several weeks before with high winds that twisted the crown of the tree causing numerous deep cracks in the trunk and major

branches. The tree was judged to be "hazardous" and removal was necessary. Following this traumatic event there was a huge clamor for the wood by wood carvers and turners, couples who were married under the tree, or those who simply wanted a souvenir. It was decided that the only fair way was to hold some kind of free give-away and thus the wood lottery was born. The event was so successful that most participants asked if this event could be repeated and even suggested which species of wood would be of interest. So far in every year there has been at least one lottery at which time small lots of free wood are provided to interested individuals. These lotteries will be held at irregular times each year as wood accumulates.



A wood lottery participant inspects a log from the osage-orange during the March, 2013 lottery. Steve Winn photo.

Status of Service Requests

Responding to service requests is the single most time consuming and expensive aspect of our urban forestry operations. These requests pour in from a variety of sources including the 311 center, Fire and Police Departments, the Hamilton County Education Department, sister divisions within City Wide Services, and other City departments. In 2005 we switched software programs for tracking work orders. The Tree Manager software program was replaced by City Works which can be used throughout the entire Department of Public Works. In 2013 the 311 Call center records indicate that we received exactly 1,000 requests as shown below and that we solved all

of them. The most current four years of information are provided for comparison.

| | <u>2013</u> | <u>2012</u> | <u>2011</u> | <u>2010</u> |
|---------------------------|-------------|-------------|-------------|-------------|
| General Tree Problems | 77 | 95 | 65 | 23 |
| Fallen Trees and Branches | 420 | 545 | 1,023 | 647 |
| Tree Removal/Hazard | 200 | 216 | 340 | 188 |
| Tree Trimming | <u>303</u> | <u>267</u> | <u>257</u> | <u>320</u> |
| Totals | 1,000 | 1,123 | 1,685 | 1,178 |

Going to Bat for Bats

The U.S. Fish and Wildlife Service (USFWS) website reports that the Indiana bat was listed as endangered in 1967 due to episodes of people disturbing hibernating bats in caves during winter, resulting in the death of large numbers of bats. Indiana bats are vulnerable to disturbance because they hibernate in large numbers in only a few caves. Indiana bats are quite small, weighing only one-quarter of an ounce (about the weight of three pennies) although in flight they have a wingspan of 9 to 11 inches. Their fur is dark-brown to black. Indiana bats eat a variety of flying insects found along rivers or lakes and in uplands. Unfortunately this species of bat is susceptible to a disease called White Nose Syndrome. White nose syndrome (WNS) is an illness that has killed over seven million bats in the U.S. and Canada since 2006 when dead and dying bats, with the distinctive "white nose," were first observed. "White nose" refers to a ring of white fungus often seen on the faces and wings of affected bats. They hibernate during winter in caves or, occasionally, in abandoned mines. After hibernation, Indiana bats migrate to their summer habitat in wooded areas where they usually roost under loose tree bark on dead or dying trees.

And this is where the story really begins.

In April of 2013 The Hamilton County Commission entered into an agreement with the USFWS to pay \$17,982 to an Indiana bat conservation fund to mitigate the removal of



The Indiana Bat

54 trees to make way for a proposed stormwater runoff facility at the Enterprise South Industrial Park. The 54 trees were potential Indiana bat roosting sites and included dead trees or trees with peeling bark such as shagbark hickory. These trees had to be removed in the early

spring before the bats could use these trees as their summer roosting sites. Otherwise the stormwater project would run into significant delays. The Urban Forestry section was called upon to remove the target trees and the job was done within the designated time frame. And the stormwater runoff project was launched on time. Bats are important because they save U.S. farmers an estimated \$22 billion per year in pest control. Bats are also important because they serve as predators feeding on night-flying insects such as mosquitoes. One bat can eat up to half its weight in insects each night. And it is hoped that the nearly \$18,000 in mitigation funds will be used for local bat projects.

Emerald Ash Borer found in Chattanooga

In June the Emerald Ash Borer (EAB), an invasive insect that attacks and destroys only ash trees, was discovered in Chattanooga for the first time. According to the Tennessee Department of Agriculture, EAB is believed to have been introduced into the Detroit, Mich. area approximately 20 years ago on wood packing material from Asia. Since then, the destructive insect has killed millions of ash trees across 23 states mainly in the north and Midwest as well as in two Canadian provinces. The find in Hamilton County was of particular concern because it is not adjacent to the already quarantined areas in East Tennessee. At least a dozen trees adjacent to the rail lines in Chattanooga and in an EAB trap located in the park behind the East Chattanooga Recreation Center tested positive for the insect. On July 1 a quarantine was imposed on Hamilton County that prohibited the movement out



The Emerald Ash Borer

of the county of any firewood, ash nursery stock, ash timber and other material that could spread EAB. City Forester Gene Hyde estimates that approximately 2,000 ash trees are growing on the City's rights-of-way and another 200,000 ash trees exist

within the corporate boundaries of the city. The Tennessee Department of Agriculture Division of Forestry estimates that five million urban ash trees in Tennessee are potentially at risk from EAB. This risk represents an estimated value loss of \$2 billion. There are an estimated 261 million ash trees on Tennessee public and private timberland potentially valued as high as \$9 billion. In anticipation of this eventuality Hyde took several proactive steps in 2013:

1. Drafted an Emerald Ash Borer management plan which covers the main problem areas and how best to deal with a range of associated issues.
2. Set out 16 sets of sticky detection traps in all corners of the city for early detection of the pest.



EAB Sticky Trap

In the meantime it was necessary to address the quarantine issues placed on the export of chips from the Hawthorne Street Wood Recycling Center even though only a small portion originate from ash trees. Federal quarantine requirements were followed to kill EAB larvae allowing for the export of chips from Hamilton County. Also, an inventory of high value ash trees was conducted to identify those ash trees on city property worth preserving. To that end a total of 83 trees were identified and about half of them will receive a preventive treatment of insecticide in the spring of 2014. This is an ongoing situation that will require attention for many years.

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Jon Nessel, Chair
Jan Pass
Sally Wencel

Administrator of Public Works:
Lee Norris

Director of City-Wide Services:
Jim Templeton

The Urban Forestry program functions as a separate operation within City Wide Services. Its mission is to provide the City with a safe and attractive urban forest, and to educate citizens about the benefits and proper care of trees. It is guided by the nine-member Tree Advisory Commission as appointed by the Mayor. The Forestry section draws on other elements within both Public Works and Parks to assist with tree planting, solving service requests, and other missions. The program's main operating budget for FY '12-'13 of \$797,991 is derived strictly from annual appropriations.

This report is prepared annually at the request of the Tree Advisory Commission.

Staff Happenings

In 2009 the Urban Forestry operations were expanded to include the Emergency Department.

Listed below are the current employees in their assigned sections:

Urban Forestry:

Tree Trimmers: Wayne Pinkerton

Equipment Operator 4: Bruce Richie and Dexter Joshen

Crew Supervisor 2: Mike Richie, Jim Willson, and Milton Stewart

Forestry Supervisor: Jerry Mauldin

City Forester: Gene Hyde

Emergency:

The Emergency Department has the responsibility for the removal of chemical spills along the roadway as well as dead animal pick-ups, litter pick-up, and discarded tires. They also are on call at night for fallen trees, pothole repair, and other mishaps that present a hazard to travelers along City streets. There is always a round-the-clock Emergency Department worker on duty every day of the year!

Workers include:

Crew Worker 1: Gerald Harrington, Warren Tillson, and Tyrone Wilkerson

Equipment Operator 1: Alvin Thomas, and Eric Cox

Equipment Operator 3: Vacant

Equipment Operator 4: Mike Compton, Pat Darr, Terry McCullough, Sherman Sales, Sherman Higdon, Chris Lance, and David Lanford.

