



Hartford's first official "City Tree" – the Charter Oak scion in Bushnell Park

*(photo - City of Hartford's Office of Sustainability)*

# **City of Hartford Tree Plan – 2018-9**

**Prepared by the City of Hartford Tree Advisory Commission**

**This document has not yet been endorsed by the Department of Public Works**



For submission to the  
**Hartford Mayor and  
City Council**

*March 2019*





Hartford's City Tree in Winter (*Jack McConnell photo*)

### **The City of Hartford Tree Advisory Commission**

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Heather Dionne - City Forester

Thanks to former citizen members Nicola Allen and Scott Scherschel and many other volunteers who were instrumental in producing this document.

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## Executive Summary

Hartford is a city in a forest. About 25% of the city's area is shaded by beautiful trees. These trees not only make our city more attractive and cooler, but they provide about \$5.5 million in environmental benefits each year including storm water retention, removal of air pollution, and energy conservation. They also provide an estimated \$18.7 million in increased property values and carbon storage.

Our goal is to maintain and expand our urban forest with an eventual target of 35% canopy cover. To accomplish this goal, we must care for healthy trees, remove dead or hazardous trees, and carry out a continuous extensive planting program.

A planting program that will preserve our current canopy cover requires us to plant about 1500 trees per year. To reach 35% within 50 years, we should plant twice that many. Most trees should be large trees that will provide maximum amount of shade. Most trees will be planted along streets and in parks and public spaces, but a large percentage should be planted on private property. Varieties must be chosen to resist known pests and to respond well to expected climate changes.

Tree care involves careful monitoring, removal of dead limbs, treatment for insects and diseases, and special care for legacy trees, such as mulching, cabling, and fertilizing. We recommend that the City of Hartford re-establish its forestry crew so it can provide and ongoing comprehensive program of care.

Removals, including stump grinding, is an ongoing, extensive, and costly process. It must be done to protect citizens, visitors, and their property and to protect the City from liability. Re-establishment of a forestry crew has been shown to be the most cost-effective way to address this requirement. It also will enable a more comprehensive system of detection and treatment of problem trees. The current system relies entirely on private contractors to conduct all forestry work and leaves the City Forester to be the only set of eyes to attend to the entire city forest.

Because effective care for our urban forests requires cooperation from citizens and businesses, an extensive program of communication and education will be required. This involves education about proper selection and care of trees, enforcement of compliance with the City's tree ordinance, and encouragement of planting on private properties.

A comprehensive and effective urban forestry program is costly, but its cost does not compare to the costs of lost environmental services, reduced quality of life, and increased municipal liability if it is not properly supported. Maintaining our forest is an investment in our future.

We hope that citizens and leaders will find this document useful and provocative. We stand ready to work with all who support our forest.

## Introduction

Hartford's forest is both extensive and complicated. Over 500,000 trees of dozens of species ranging in age from recently planted to over 100 years old require a careful and well thought out approach to maintaining tree health, enhancing the forest with new plantings, and addressing trees that become diseased, damaged, have died or have fallen. The City of Hartford does not have unlimited funds for this work, so available resources need to be focused and carefully allocated to make sure that the taxpayers get the most value for their tax dollars. This report describes the current status of the forest, describes the work that has been done in recent years, sets principles to be followed in management of our forest, and sets both short-term and long-term goals for forestry work.

This report combines two reports specified in the Hartford Tree Ordinance (Section 28-151 through 28-167 of the Hartford Municipal Code).

The first is the "State of the Forest" report, described in Section 28-156 (h):

*The Commission shall create an annual "State of the Forest" report about what has occurred in the City's Tree Inventory and urban forest and shall also prepare recommendations of policy and action for the next year. This report may also identify priority locations for planting, so that the City's Tree planting will address any arboreal inequities and will give priority to filling in gaps resulting from the absence of Streetscape Trees.*

The second is the Master Tree Plan, described in Section 28-154:

*Master Tree Plan means a document prepared by the Tree Advisory Commission that shall establish direction for the City's urban forestry program and shall include targets for Tree canopy cover and Tree diversity. It shall also reference standards for safety in Tree care operations, for Tree planting, and for Tree maintenance. It shall also include guidelines for specifications relating to Trees and Tree care and for contract Tree work. In addition, the Master Tree Plan shall outline a broad program for the improvement of the urban forest that may include recommendations for urban forestry activities in specific neighborhoods, along specific streets, and in areas of the City such as Historic Districts. The Master Tree Plan shall also include a plan for management of City-owned woodlands, such as those that exist in City parks. The Master Tree Plan shall be integrative with other City plans and activities. The Master Tree Plan shall incorporate the most recent Tree inventory as conducted by the City Forester and may, at the discretion of the Tree Advisory Commission, include additional studies of the urban forest.*

The State of the Forest report will be updated each year, and the Master Tree Plan will be reviewed at least every five years.

## State of the Forest

**Where we stand** – Starting in 2007, Hartford began a serious and ongoing effort to assess its urban forest. The first step was a survey of 200 random locations in the City. It estimated that Hartford has about 568,000 trees that produce a leafy canopy covering approximately 26% of the City. By way of contrast, New Haven has canopy coverage of roughly 37%. Our street tree canopy is only about 16%. Approximately half of our trees are on private property. Ten percent of our trees are over 20 inches in diameter, yet they account for almost 50% of the total canopy cover. The age and size of our canopy trees is important because it indicates that the forest is aging and therefore at risk, and that each time we lose one of those trees we lose a significant piece of our canopy.

Additional research has indicated that each year we receive about \$5.5 million in environmental benefits from our forest, mostly due to storm water retention. The estimated value of our forest in terms of contribution to property values and stored carbon is \$18.7 million.

This data has been developed in cooperation among the City of Hartford, KNOX, DEEP, the University of Vermont, American Forests, Davey Tree, and the U.S. Forest Service. Research reports are available from the City Forester.

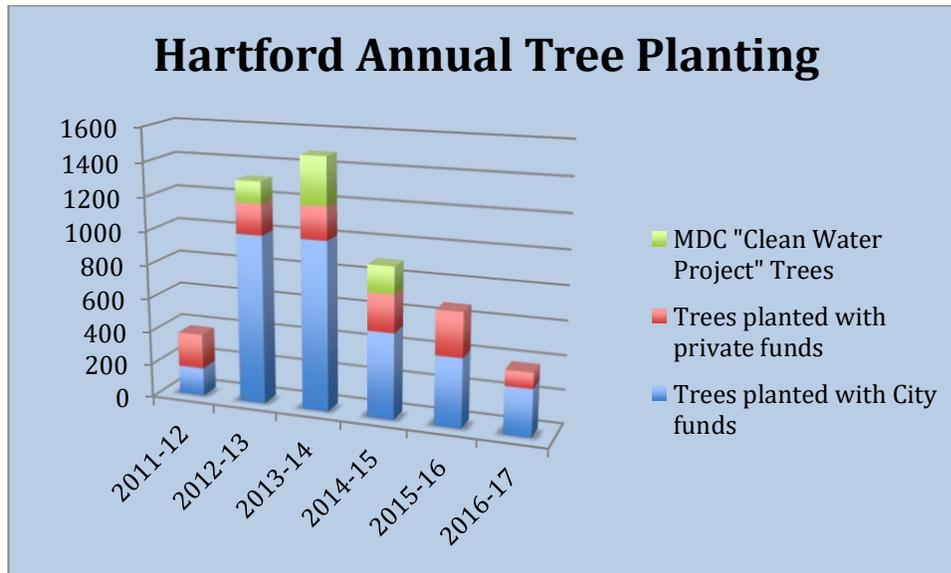
Hartford has been a Tree City USA for 24 consecutive years. This designation by the Arbor Day Foundation recognizes cities that have a city forester, have a substantial tree budget, have an annual Arbor Day event, and have a tree protective ordinance.

**What we have been doing** – Maintaining a healthy and productive urban forest requires a balanced approach including removal of dead trees, care for diseased, damaged or aging trees, and the planting of new trees to enhance the canopy and to replace those trees that have been lost.

The City of Hartford has spent over \$1.6 million on tree removal and maintenance by contractors from FY 2012 to FY 2016. Annual expenditures ranged from \$160,000 in 2012, when Hartford still had a full forestry crew, to \$653,000 in 2016. The budget for 2017-18 was \$555,000, not counting the specific special allocation for response to Emerald Ash Borer. In FY 2016-17, the city removed 282 trees. Thirty-seven of these trees were 0-6" in diameter, 30 trees were 6-12" in diameter, 119 trees were 12-24" in diameter, 56 trees were 24-36" in diameter, and 40 trees were 36"+ in diameter.

Annual City-funded tree planting has ranged from 1,002 in FY 2012-13 to 280 in FY 2016-17. These numbers do not include the relatively small number of trees planted as part of development projects. The budget for 2017-18 was \$75,000 plus an additional \$75,000 from the Hartford Decides – Keep Kids Cool project. If funding is actually allocated and contracts executed, this will provide for planting of 250 trees. Emerald Ash Borer funding may allow for planting some additional trees depending upon how much must be spent for treatment of lightly infested ash trees and removal of dead or dying trees. Over the past five years, the most commonly planted trees are *Acer rubrum* (red maple), *Amalanchier* (Serviceberry), *Cornus kousa* (Kousa Dogwood), *Prunus yedoensis* (Yoshino Cherry), and *Prunus*

serrulata (Japanese Flowering Cherry). However, planting of Red Maples, smaller flowering trees and non-native trees has been significantly reduced as a percentage of total plantings over that period.



Note that the number of trees removed in 2016 -17 is almost identical to the number of trees planted. This practice, although better than no planting, if continued, will lead to significant loss of tree canopy. A recent i-Tree analysis suggests that Hartford lost about 2% of its canopy between 2014 and 2018.

During Fiscal Year 2016-17, the City Forester carried out a large number of concrete tasks specifically related to management of our urban forest.

- The City Forester responded to 378 Public Stuff (3-1-1) forestry cases.
- The City Forester responded to approximately 100 emergency storm response cases.
- The City Forester responded to approximately 100 additional cases that did not come through the Public Stuff system - typically routed through DPW dispatch or the administrative assistant.
- The City Forester created 274 work orders for forestry services in the past fiscal year.
- The City Forester issued 44 private tree removal permits during the past year.
- The City Forester successfully required the removal of 7 hazardous private trees.
- The City forester reviewed between 40 and 50 tree plans submitted to the Department of Development Services during the past year
- The City Forester completed inventory of 149 Ash trees for treatment or removal due to Emerald Ash Borer infestation. 59 were slated for removal and 90 will be treated. An additional 67 are being treated by the CT Agricultural Experiment Station.

**Challenges** - In order to have a healthy and productive urban forest, one that continues to clean our air, and cool our homes, businesses, streets and public places, we need to balance preservation of the existing forest ecosystems, care of damaged trees, removal of dead trees, and planting of

replacements. Availability of funds to do this work is always a challenge, but there are other challenges facing our forestry efforts as well.

Age – As noted above, half of our tree canopy is provided by just 10% of our trees, those that have trunks 20 inches or more in diameter. These trees may be nearing the end of their useful life and may succumb to disease or storms and will have to be removed. This suggests we should be prepared for substantial and perhaps increasing canopy loss in coming years. If a single tree is planted to replace one of these, it will take upwards of 50 years before the replacement tree will begin to provide anywhere near the environmental value of the tree that was lost. Maintaining existing canopy is generally much less expensive than replacing the equivalent amount of canopy with new trees. This maintenance can include pruning, structural support, and soil enhancement (aeration, fertilization, mulching). Moreover, established forests that require minimal maintenance, especially forested wetlands along stream corridors, need to be protected from development.

Invasive insects – Our forest has been decimated by Chestnut Blight in the 19<sup>th</sup> century, Dutch Elm Disease in the early 20<sup>th</sup> century, and more recently Hemlock Woolly Adelgid (the Eastern Hemlock was once the most common evergreen tree in Hartford). In November 2016, the Emerald Ash Borer (EAB) was discovered in Hartford’s Keney Park and further investigation indicated that it had spread throughout the city. Without treatment with pesticides, EAB would destroy the entire Ash population in the city within a half-dozen years. In collaboration with the Connecticut Agricultural Experiment Station, DEEP, and ArborJet, the City has mounted a campaign to remove moribund Ash trees, treat salvageable trees, and plant replacement trees of a different species. We are now on the lookout for another devastating pest, the Asian Longhorn Beetle (ALB). This invader has a much less restricted diet and is particularly fond of maples, our most common tree species. There is no known effective treatment for ALB except to remove and burn infested trees. The 2007 UFORE survey indicates that almost half of Hartford’s trees are potential hosts/victims of ALB.



ArborJet researcher injects an Ash tree infested with Emerald Ash Borer *(Hale photo)*

Harsh weather – Starting with winter storm Alfred in late October 2011, Hartford’s forest has suffered from a string of weather events that have caused significant destruction, particularly to our large, mature trees. Trees that would otherwise have had many years of productive life ahead of them have been destroyed or leveled.

Drought and heat – Hartford has experienced three particularly hot, dry summers in a row (2015-17). This weather has had significant impact on both the youngest and oldest trees in our forest. Tree roots typically are found in the top two feet of soil. Connecticut was in a deficit of twenty inches or more of rain, which meant that there was little to no moisture for any of the trees in the state. In some cases, it has proved nearly impossible to get enough water onto the shortened roots of newly planted trees and they have died of dehydration almost as soon as they were planted. This problem has been exacerbated by the fact that tree planting contracts for each fiscal year (starting in July) have typically not been executed by City administration until the following early spring. Due to the delay in funding, the cool fall planting season is missed and new trees planted in spring are faced with hot dry weather before they have been able to establish healthy roots. Large, older trees, on the other hand have been observed to die and disintegrate without warning, dropping large limbs. Foresters attribute this to dry rot associated with hot dry weather and have recently named the phenomenon sudden limb drop. Without a significant improvement in the weather,

Hartford can expect continued decline in the health of its urban forest. Trees planted as part of green infrastructure projects may be partially protected from drought.



A large Maple that appeared healthy in summer 2016 but that never leafed out in 2017  
(Hale photo)

Private trees – Trees on residential, commercial, and institutional land make up about half of Hartford’s urban forest. In general, the City has little influence over these trees except limits on removal of large trees, requirements for planting during development activities, and response to public hazards. Maintaining an effective canopy will require cooperation from private property owners, particularly in the maintenance of existing trees and the planting of new ones.

Loss of the forestry crew – The City of Hartford has been without in-house forestry capacity since the last two tree trimmers were laid off in May of 2016. Since then, all tree maintenance and removal work has been done by contractors. Tree Advisory Commission analysis suggests that the funds expended to hire contractors during the past two years could have supported a 3-person forestry crew. The City already owns all the necessary equipment and vehicles needed for this work. The commission believes that re-establishing a professional crew would save money and it would provide a higher level of service, quicker response to emergencies and 311 calls, and more attention to detail in management of the forest. The commission also believes that a professional forestry crew would enable the City Forester to spend less time managing contracts so that she could focus more attention on other aspects of her job.



KNOX Green Crew members plant a tree on Capitol Avenue (KNOX photo)

Climate change, tree selection, and habitat maintenance – As noted above, climate change has generated extended periods of drought, more frequent incidences of severe weather, and an increase in average annual temperature. In response, the preferred tree planting list needs to add trees that are resistant to drought and severe weather and that can survive the increased temperatures that we expect in coming decades. Some native trees, like Sugar Maples, for which Connecticut is on the southern edge of their range, will no longer be suitable. Other trees that are more common south of Connecticut may be more viable choices, although they must also be resistant to drought and severe weather. It is tempting to rely on extremely tough non-natives such as Ginkgos. Unfortunately, these tend to provide minimal habitat value to native birds, insects, and other wildlife. Not only that, but many natives have been or will soon be wiped out by incursions of invasive insects and diseases. Maintaining a continually changing tree list will be an ongoing process that must juggle all these interests and rely heavily on developing science.

Education – Most people in Hartford, if asked, would probably say that trees are good, but few know very much about the urban forest, its value to people and wildlife that live here, and the best ways to care for it. This is also true of people who work for the City of Hartford, often at tasks that are closely related to tree health and the importance of trees. Children receive little instruction about the nature and importance of trees. If Hartford and its residents are to become and remain committed to maintaining a healthy urban forest, they need to know more about what that entails. A well-designed forestry website, a variety of printed materials, use of social media, training programs and standard operating procedures for City staff, as well as collaborative relationships between the Tree Advisory Commission, the City Forester, and staff throughout the City administration, will be crucial for long-term success. KNOX has developed a successful program to educate school children about trees. This program should be continued and expanded.



Tree Warden training at Bushnell Park (*Chris Donnelly photo*)

## Long-term Over-arching Goals

- Maintain the health of the urban forest
- Ensure public safety
- Increase our tree canopy to at least 35%
- Reduce the urban heat island effect through target plantings in the urban heat islands
- Increase tree plantings aimed at energy savings
- Reduce storm water run-off through target plantings
- Improve air quality through forest management and careful selection of new trees.
- Design and implement an environmental stewardship program for Hartford schools, City of Hartford employees, and Hartford citizens
- Become an urban forestry model for cities in the northeast and beyond

## Accomplishments of the City Forester and Tree Advisory Commission – 2016-17

- Made progress toward needed revisions of the Hartford Tree Ordinance
- Participated in creating the recently adopted City of Hartford zoning regulations
- Participated in creating the recently adopted City of Hartford Climate Action Plan
- Produced and distributed the “Trees Make our City Beautiful” brochure for Hartford residents
- Organized an Emerald Ash Borer research project with the CT Agricultural Experiment Station and Arborjet
- Made presentations to the mayor, council, committees, and community groups
- Advocated for reinstatement of the City’s forestry crew
- Advocated for expedited tree planting contracts so that tree planting can be done in the fall, the optimal season for successful planting
- Drafted an expanded and updated preferred tree list for Hartford
- Testified on tree related aspects of the State of Connecticut energy strategy
- Participated in a U.S. Environmental Protection Agency Green Streets program for Hartford
- Submitted a Landscape Scale Restoration grant application to US Forest Service
- Participated in public hearings regarding the Brainard Airport tree removal plan
- Obtained Arbor Day Foundation Tree City USA designation for the 24<sup>th</sup> consecutive year. Hartford earns this distinction by having a City Forester and Tree Advisory Commission, having a substantial municipal tree planting and care budget, having a municipal tree ordinance, and holding an Arbor Day observance each year. Only 17 Connecticut towns have this designation, and only four have held it longer than Hartford

## Tree Advisory Commission Goals -2017-18

- Promote planting of at least 1,000 trees. Selection and siting of trees will be done in cooperation with residents and NRZ's. The actual annual target should be much higher. The recently adopted Hartford Climate Action Plan recommends 2,500 trees per year, but even that may not be adequate. At this point available funding will fall far short of even the modest 1,000-tree goal. The current request-based system used by KNOX to identify planting locations is commendable because it supports survival of new trees through the commitment of individual residents. Paired with a commitment to equity among neighborhoods and focus on planting in heat islands, this process yields the best results for tree planting dollars.
- Investigate the possibility of re-establishing the City's forestry crew.
- Continue distribution of the tree brochure.
- Finalize letters to be used by the City Forester in responding to citizen concerns or complaints about trees interfering with sidewalks and sewer pipes.
- Finalize revisions to the tree ordinance and support adoption by the City Council.
- Identify at least one legacy tree. Approximately 60 public and private trees will be designated. These include 49 state champion trees and a number of others designated by the City Forester as requiring special attention. The trees will be tagged and located on the City's GIS mapping program and the designation will be publicized.
- Identify City Tree of the year. The main Charter Oak scion in Bushnell Park has been designated for 2018.
- Finalize wood debris management plan including a proper storage location.
- Expand the City's forestry web page to include tree permit applications; the Hartford preferred tree list (once completed); the City-wide rights of way listing; the Hartford tree brochure; a tree removal flyer; Hartford's Birds – Municipal Conservation Reference; notices of proposed tree removals; Hartford forest research reports; and Tree Advisory Commission agendas and minutes.
- Finalize preferred tree list.
- Monitor the Keep Kids Cool planting of 125 trees on the grounds of at least 5 Hartford schools. (Funded through Hartford Decides)
- Investigate producing a tree spot for CATV.
- Monitor the process on the Connecticut Airport Authority's plans to remove trees around Brainard Airport.

## City Forester Tasks and Goals – 2017-18

The City Forester is responsible for overseeing the health and care of Hartford's forest which includes all public trees and all trees over 13 inches in diameter on private property. There are over a half million trees in the City. These tasks and goals are not listed in priority order.

### Tree Planting

- Manage the annual tree planting contract and 'Keep Kids Cool – Let Them Breathe' Hartford Decides contract to determine planting locations and proper species in cooperation with KNOX, Board of Education, NRZ's and property owners.
- Work with local nursery on the propagation of the Charter Oak Scion and Turkey Oak (legacy trees located in Bushnell Park)

### Tree Maintenance Management

- Manage response to tree emergencies. Case load could increase depending on magnitude of storms. The snow storm of 2011 took out approximately 3,000 trees in the city alone. Up to 180 emergency and hazard cases are expected over the course of the year.
- Manage six contracts for tree maintenance, treatment and planting and community garden development.
- Identify tree hazards, determine what action is required, prepare work orders, and oversee the resulting work - 250-350 cases/year
- Manage comprehensive Emerald Ash Borer infestation response. This includes removal of dead or dying ash trees, continued treatment of valuable healthy trees, and planting replacement of trees immune to this insect. The current monitored population is 157 trees.
- Prepare and distribute letters to approximately 40 private property owners on whose property ash trees are located, advising them of the EAB threat and possible responses they can make.
- Identify, adopt, and implement Best Management Practices and Standard Operating Procedures relative to tree health for use in DPW's engineering & streets divisions (sidewalk replacement & structural soils)
- Continue evaluation of hazardous private trees and correspondence with property owners. Hartford experiences approximately 25 such cases each year.
- Continue with KNOX to develop plans for maintenance of recently planted trees, including watering as needed through 5 years, mulching, and periodic pruning.
- Update and manage all tree-related Public Stuff cases - 400-500 cases/year. This requires inspection, updating the database and closing cases when work is completed.
- Update and manage the tree-related elements of the MUNIS work order system - 400-500 cases/year
- Complete treatment of 18 notable trees in cooperation with the Bushnell Park Foundation. This project is funded by an America the Beautiful grant from CT DEEP
- Evaluate mature trees and determine if they are candidates for crown cleaning and reduction to enhance storm resilience - 25-35 trees/year
- Assign/direct contracted tree crews & DPW staff

- Manage street tree maintenance as resources permit. Work typically consists of the first five categories listed below and is prioritized based on risk:
  1. Hangers- Broken, hanging branches typically found in the crown of the tree
  2. Deadwood- dead limbs and branches still attached to the tree
  3. Sight/signal clearance- clearance of traffic signals
  4. Sign clearance- clearance of stop signs and other street signage
  5. Elevation: sidewalks- 12 feet, roadway- 15 feet- safety precaution so pedestrians and vehicles have a clear lane of travel
  6. Stubs- partially remaining branches that the tree expends energy on to remove
  7. Sucker growth- growth typically found at the base of the tree that could interfere with sight lines and passage
  8. House/roof clearance- tree branches are hitting the structures and could cause damage
  9. Reduction (specified by City Forester)- reducing length of branches or limbs to reduce breakage in storm events
  10. Thinning (specified by City Forester)- reducing foliar and branch weight on limbs to reduce breakage in storm events

#### Collaboration with City Departments and Other Agencies

- Evaluate landscape/tree planting plans in cooperation with City of Hartford Development Services Department - 50-75 cases/year. Make sure plans are in compliance with the tree ordinance, review proposed species and if necessary, require tree preservation plans for existing trees
- Review and approve tree removal plans in cooperation with City of Hartford Development Services Department. Fifty to 75 removal requests are expected.
- Manage community garden contract with KNOX - Hartford Decides
- Work with the city's sustainability coordinator utilizing grant opportunities that coincide with the city's Climate Action Plan
- Serve as Chair of the Connecticut Urban Forest Council and as a board member and the educational coordinator for the Connecticut Tree Wardens' Association with the objective to bring the stakeholders together to make urban forestry a necessity and not a luxury and to empower employees in municipal settings with the qualifications to conduct proper arboricultural practices
- Testify on tree litigation cases when called upon.

#### Education

- Identify Standard Operating Procedures and Best Management Practices regarding maintenance of tree health and employee safety
- Distribute tree brochure through NRZ's and other community groups
- Coordinate annual Arbor Day celebration in cooperation with KNOX and CT DEEP.
- Prepare and submit annual Tree City USA application.
- Teach DPW staff and KNOX crews about proper tree planting and small tree pruning techniques- LSR grant

## Policy and Planning

- Assist with creating the urban forest master plan
- Prepare for eventual response to Asian Longhorn Beetle
- Participate in updates of zoning regulations and the tree ordinance
- Make 15-20 presentations to Mayor, Council, committees and community groups
- Assist in drafting City of Hartford preferred tree list
- Continue advocacy for tree planting in the city for the health and wellbeing of residents
- Evaluate City's disaster preparedness plan for emergencies pertaining to tree failure during storm events
- Keep current on industry standards/safety practices
- Carry out a pilot street tree inventory of the South Green neighborhood in cooperation with KNOX. The inventory is funded by an America the Beautiful grant from CT DEEP.



City Forester Heather Dionne works with former KNOX Executive Director Ron Pitz and CT DEEP Urban Forestry Coordinator Chris Donnely to uncover and identify Emerald Ash Borer

## Conclusion

Maintaining a safe, healthy, productive, and beautiful urban forest is crucial to the well-being of the City of Hartford and its residents. This work requires a continuous, concerted and comprehensive effort by citizens, City staff, and property owners. This document lays out the current circumstances of our urban forest, the work currently being done, and the goals that need to be adopted in order for Hartford to remain and increasingly to become a well-forested city. The health of our citizens and the economic and political health of our city depend upon this. The costs of maintaining a healthy forest may seem high, but they are nowhere near the costs associated with allowing our city to become barren and ill kept.

The City of Hartford's Tree Advisory Commission hopes that readers will find this report to be informative and useful and that it will spur them to take action on behalf of our trees.



A dead tree after removal of dangerous branches, awaiting crane and log truck required for the remainder of the job

### Hartford Urban Forest Resources

Hartford's Urban Forest – The Challenge – (CT DEEP) – 2008

A Report on the City of Hartford, Connecticut's Existing and Possible Tree Canopy – University of Vermont - 2010

Urban Tree Canopy Assessment and Planting Plan – American Forests – 2015

Mapping Urban Tree Canopy, Urban Heat Island and Extreme Heat Vulnerability in Hartford, CT – Kate Richard, CT DEEP – 2017

## **Hartford Tree Plan 2019 addenda**

### **State of the Forest Update**

- During fiscal year 2017-2018, 361 trees were removed by contractors. 384 trees were pruned. Total cost to the City of Hartford for contracted forestry services was \$438,291. Of that, \$69,210 was for emergency services, \$12,868 was for treatment and special care, and \$51,951 was for EAB removals.
- During fiscal year 2017-18, no trees were planted using City funds.

### **Accomplishments of the City Forester and Tree Advisory Commission – 2017-18**

- Completed revision of the Hartford Tree Ordinance
- Completed tree removal information sheet
- Continued advocacy for reinstatement of the City's forestry crew.
- Obtained Arbor Day Foundation Tree City USA designation for the 25<sup>th</sup> consecutive year.
- Worked with Trinity College intern Giles Lemmon to model tree canopy loss and project impacts of various rates of tree planting over the next 30 years. This information will be particularly useful in providing a basis for future tree planting budgets.

### **Tasks completed by the City Forester – 2017-18**

- Responded to 158 Public Stuff (3-1-1) cases
- Responded to 150 emergency storm response cases
- Responded to approximately 100 additional cases that did not come through the Public Stuff system.
- Created 132 work orders for forestry services.
- Issued 20 private tree removal permits
- Required removal of 10 hazardous trees on private property
- Reviewed 20 tree plans submitted to the Department of Development Services
- Removed 57 dying Ash trees, treated 98 Ash trees for Emerald Ash Borer, and worked with CT Agricultural Experiment Station on an EAB research project that treated 67 trees.

### **Tree Advisory Commission and City Forester Goals – 2018-19**

- Complete a street tree inventory of Upper Albany and two other neighborhoods.
- Complete hazard street tree survey of the remaining three districts.
- Complete hazard tree inventory of high use areas in all parks.
- Develop plans for comprehensive inventory of street trees and high use park areas.
- Promote funding for planting 1500 trees in the 2019-20 City budget.
- Investigate establishment of a program to fund tree planting on private properties.
- Work with a student intern to refine planting plan projections, specifically extending projections out to at least 50 years, refining results from summer efforts, and, if possible, to prepare a canopy forecast for a specific, currently unforested street.
- Publicize Hartford's first City Tree and the first group of legacy trees.

- Update the City forestry website
  - Post the City's Right of Way list indicating distances from curbs to right of way lines for each street.
  - Post notices of all tree removals
  - Post the Tree Advisory Commission's recommended tree list
  - Post this Tree Plan once it is adopted
  - Include a link to the tree ordinance
  - Post information about the official City Tree
  - Post information about legacy trees
  - Post agendas and minutes for Tree Advisory Commission meetings
  - Post a tree planting conceptual plan
  - Post tree permit applications
  - Post the City's tree brochure
  - Post the City's tree removal flyer
- Reconstitute the Tree Advisory Commission based on the revised Tree Ordinance
- Investigate bi-lingual and prioritized tree removal placards
- Support adoption of the revised tree ordinance
- Establish a Facebook page for Hartford urban forestry
- Complete plantings for the Keep Kids Cool program
- Continue treatment and removal of Ash trees as indicated
- Continue advocacy for reconstitution of the Forestry Crew
- Support the work of the City's Tree Working Group
- Monitor the process of the Connecticut Airport Authority's plans to remove trees around Brainard Airport

**DRAFT - not for distribution**

## Who are “we?”

Throughout this report, there are references to “we.” The word first refers to the many people who helped to produce it. First are the members of the City of Hartford’s Tree Advisory Commission acknowledged on the inside of the front cover. Others who have also been part of the discussion and who have otherwise contributed to the work of the commission include:

Dr. Richard Cowles – CT Agricultural Experiment Station  
James Del Visco – Assistant Corporation Counsel, City of Hartford  
Chris Donnelly – Urban Forestry Coordinator, CT DEEP  
Tomek Furtak – Risk Manager, City of Hartford  
Chris Hayes – Director of Operations, Riverfront Recapture  
Shubhada Kambli – Sustainability Coordinator, City of Hartford  
Michael Looney – Deputy Director, DPW, City of Hartford  
Edith Pestana – Environmental Justice Program Administrator, CT DEEP  
Grace Yi – Green Infrastructure Assistant, City of Hartford

“We” also refers to all those who will need to help protect, preserve, and expand Hartford’s urban forest. Of course, it refers to our City Forester and the Tree Advisory Commission, but it also refers to: **The Mayor**, who is responsible for the leadership of the City  
**The City Council** who not only need to adopt good forest practice policies but also need to allocate the budget to support necessary work

**The Director and Deputy Director of Public Works**, who oversee the forestry function and who are responsible for setting policy throughout the department.

**Workers within the Department of Public Works**, particularly those whose work intersects the forestry function. Mowing crews in particular need to be careful around young trees so they don’t damage bark. They can also be helpful by reporting forestry problems that they notice throughout the city.

**The City Grants Manager** who will help identify funds to support the growth of the forestry function.

**The City Architect** who develops plans for public buildings and park installations, who can make sure that each plan includes suitable tree protection and planting.

**The Department of Development Services**, which oversees development projects throughout the city. They can ensure that existing trees are treated properly and new trees are planted during these projects.

**The Planning and Zoning Commission**, which reviews development plans and can make sure that each has an included tree preservation and planting plan.

And finally,

**Residents, property owners, and voters** in the City who can advocate for a strong forestry program, who can report trees in trouble (via 311), and who can organize planting trees on private property.

**“We”** are all in this together.

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