

Elkins Urban Forest Management Plan

INTRODUCTION

In 2008, the City of Elkins formally established a City Tree Board by ordinance (*Appendix A*). In that ordinance the duties and responsibilities of the board, as well as its membership, were outlined. Among the many sections of the ordinance, are the following requirements:

 It is the responsibility of the Board to study, investigate, counsel, develop and administer a written plan for the care, preservation, pruning, planting, replanting, removal or disposition of trees and shrubs in parks, along streets, and in other public areas. Such plan will be presented to the Council and



- upon their acceptance and approval shall constitute the official comprehensive city tree plan. Any changes to the city tree plan shall be presented to Council for its consideration.
- The Board will promote the establishment of a tree inventory for public trees. The inventory should be updated as often as practicable.
- The Board shall consider, investigate, make findings, report and recommend upon any special matter or question coming within the scope of its work. The Board shall report the results of its investigations to Council within a reasonable time.

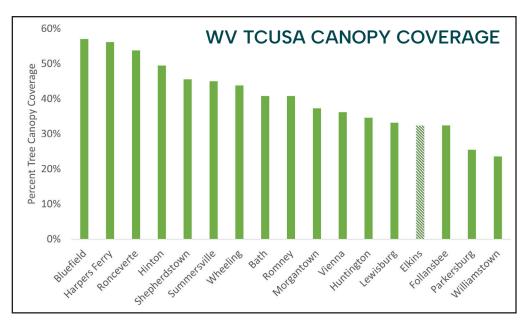
Since its inception, the Elkins Tree Board (ETB) has successfully planted hundreds of trees, promoted tree maintenance and stewardship, worked closely with other agencies to promote the urban greenscape, and sponsored workshops and annual Arbor Day events.

The ETB works closely with the Elkins Parks and Recreation Commission to increase the tree canopy in city parks as well as working on public education initiatives which include the expansion of the Toumayan Interpretive Trail signage, tree identification markers and many tree plantings at Glendale Park. In 2020, an outdoor classroom project was initiated with the guidance of ETB's AFNHA AmeriCorps member Eric Schwartz which included extensive tree plantings and stone installations.

The ETB works to maintain the historic integrity of Elkins City Park by utilizing funds for the purchase of trees and soliciting dozens of volunteers. The goal is to make sure the tree canopy at Elkins City Park continues to be healthy, diverse and long-lived. Several other tree plantings have increased the shade and beauty at other city parks, such as Glendale, Bluegrass Park and Davis Street Park. The ETB has established and maintains a tree nursery and heirloom apple orchard at the historic Kump House and has been working on protecting the wetlands forest at that site.

Most notably, the ETB spearheaded a multi-year downtown greenscape project by securing West Virginia Division of Forestry Demonstration City grants to replace out-dated tree boxes with inground planted trees. The trees were specifically selected for their ability to withstand the urban environment and provide cooling shade. Decorative grates were installed to protect the trees from damage. Thanks to support from the City of Elkins, the project will be completed in 2024.

The founding members of the Tree Board worked quickly on earning Tree City USA (TCUSA) status and Elkins continues to have that honor today. For the last several years, Elkins has been the only WV city to receive the TCUSA Growth Award which recognizes additional work in areas of education and administration and has been one of the top TCUSA towns for volunteer dedication.



With these past laurels, the ETB looks towards the future. It is critical for the City of Elkins to have an Urban Forest Management Plan that reflects research, public input and municipal support.

In 2017, Dr. Gregory Dahle, Associate Professor of Arboriculture and Urban Forestry, WVU Davis College of Agriculture, Natural Resources and Design, conducted a study funded by the West Virginia Division of Forestry. The goal was to quantify the ecosystem benefits provided by urban trees within Tree City USA (TCUSA) communities throughout West Virginia.

The study, *Ecosystem Benefits of Tree City USA Cities in West Virginia*¹, utilized USDA Forest Service software, i–Tree Canopy, to estimate canopy cover and calculate the ecosystem benefits of the urban forests. Results document that West Virginia's urban forests make significant contributions to communities including sequestering 2,847,190 tons of carbon providing a total benefit of \$53,308,328 in stored carbon. Additional benefits involve the annual capture of 4,348,592 pounds of pollutants with an estimated value of \$6,441,179 across TCUSA communities.

In Elkins, urban trees capture 82,104 tons of carbon per year—valued at \$1,589,810. Overall, the tree canopy offsets an estimated \$187,626 worth of pollution.

While this is substantial, the study found that Elkins is in the lower tier of registered TCUSA cities in canopy coverage, at just over 30%. The study recommends that Elkins manage its urban forest to obtain the ultimate goal of 40% canopy coverage by budgeting for both new plantings and maintenance of existing canopy. Optimal canopy coverage for an urban area is 40% or greater (Walker et al., 2017).

TCUSA encourages cities to create and implement plans to meet these goals and recognizes that the enhancement of tree canopy cover requires a significant investment in urban forestry. The benefits are many. Managing city trees with purpose and intention will sustain a larger green mantle, providing numerous benefits to people and the planet. The urban forest makes a city more livable: from cooling shade and placemaking beauty to sequestering carbon, cleaning the air, filtering runoff, providing avian habitat and mitigating heat island effects, the urban forest is a critical, city-scaled resource that requires planning and vision. The City of Elkins five-year Urban Forest Management Plan 2024 outlines that vision.

¹ Walker, Matthew; Sakazaki, Anglea, Eckenrode, Robert; and Dahle, Gregory. *Ecosystem Benefits of Tree City USA Cities in West Virginia*. Arboriculture & Urban Forestry Program Davis College, School of Natural Resources West Virginia University. 2017

VISION

The Elkins Tree Board will foster the best possible version of its urban forest - as a public resource, an environmental priority, and as a point of pride.

GOALS

Leverage the urban forest as a public asset through volunteerism, expanding planting & tree programs, publicizing tree data and continuing outreach



Manage the urban forest according to best-practice principles of right tree for the right place, while seeking to maximize tree size where possible and account for diversity



Promote structural pruning and tree maintenance in tandem with strategic planting efforts



OBJECTIVES

To implement our goals, the Elkins Urban Forest Management Plan's objectives include:

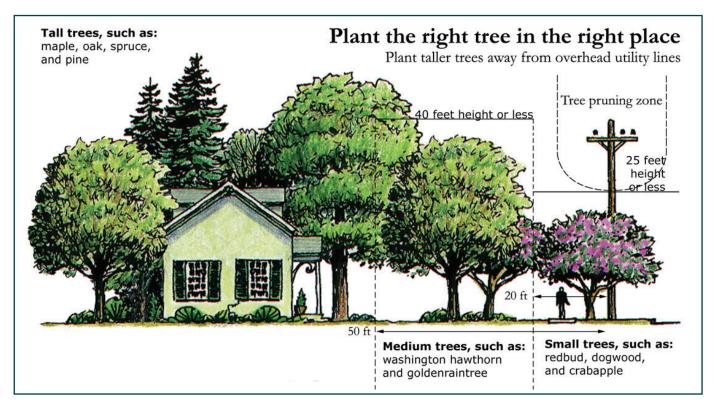
- effective administration
- proper site analysis
- proper site preparation
- proper tree selection and purchase
- proper tree planting

- proper maintenance
- quality design
- adequate funding
- community education and participation
- envisioning and creating annual work plan

Strategies for Effective Administration

- The Elkins Tree Board (ETB) will maintain a tree inventory of public trees and keep it up-to-date by means of timely tree evaluations.
- The city arborist and the ETB may be consulted in the annual assessment of trees
- An annual report will be made to Elkins City Council describing needed funding and work to be completed.
- A council member will serve on the ETB and act as a liaison to the City Council.
- An annual work plan and budget will be developed in January based on the tree inventory and tree assessments.
- The ETB will be responsible for reviewing the city tree ordinance on a regular basis to ensure its appropriateness.
- Utility representatives will be encouraged to meet with the ETB and City of Elkins Operations Department once a year to discuss needed tree pruning, removal, and planting.

- Utilities must notify the City of Elkins Operations Department if removal or pruning of trees is necessary.
- Tree protection standards and tools will be provided for all construction projects that affect street or park tree health and structure.
- To help ensure better funding and management, the ETB will work in cooperation with the West Virginia Division of Forestry and other similar agencies.
- Hazardous trees and conditions will be assessed by the city's qualified arborist using standard tree risk procedures.
- Before any public tree is planted, the following factors will be taken under consideration: climate and weather (temperature extremes); soil (type, compaction); growing space (amount of soil, space for growth, conflicts); functional desires (design themes, views); and attitudes of residents and business owners.
- Before any final decision is made about tree planting, all planting sites will be evaluated for soil conditions, safety



- concerns, and growing space that is limited by utilities, sidewalks, and curbs.
- The ETB encourages the removal and replacement of trees after serving a useful lifespan. Trees in poor condition for either health or structural reasons should be removed. Depending on the location of the tree, the burden of cost would fall on private property owners or, if on city property, the City of Elkins.
- Only trained, certified, and insured professionals who follow good agricultural practices should be hired for any work on public trees. The ETB will maintain and have available, a list of tree professionals.
- Visual clearance for intersections, traffic signs, and traffic signals will be maintained.
- Requests by property owners and others will be responded to promptly by a member of the ETB.
- A course of action for the removal of hazardous trees and pruning can be developed by the city arborist, if requested.

Strategies for Proper Site Preparation

- Rubble and poor soils should be removed from a planting site and replaced with appropriate soil.
- Specially designed planting pits, which increase the amount of available soil and root growing area, will be used when trees are planted in sidewalks, patios, and parking lots. These planting pits will be designed to ensure tree viability.

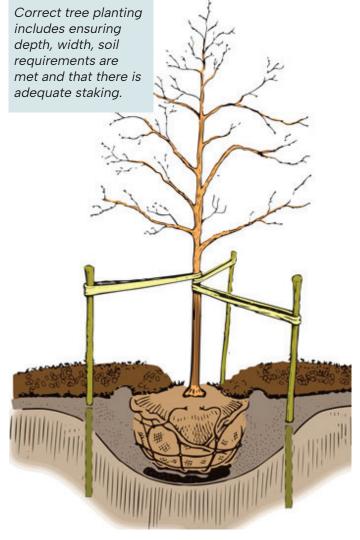
Strategies for Proper Tree Selection and Purchase

 Public trees to be planted will be selected using information from the West Virginia Division of Forestry, Urban Forestry program tree planting



guide, recommendations from WV DOF foresters as well as the city arborist. The tree guide identifies trees for different areas such as downtown, neighborhoods and parks, and addresses utility, soil conditions and light issues.

 Planting material will conform to the latest version of the American Standard





for Nursery
Stock (American
National
Standards
Institute [ANSI]
Z60.1). Trees
to be planted
should be of
standard quality
or better and
should be true to
name and type
of their species
variety.

 Trees will be purchased from reputable nurseries known for their quality of stock.

Strategies for Proper Tree Planting

- Using "right tree for the right place" strategy, the size and age of tree planted will be appropriate for the site. No trees will be planted in tree lawns less than 2 feet in width.
- Optimum weather conditions will determine to time of year for planting trees. Early spring and late fall are the most appropriate times for plantings in our area.
- The burlap and twine from balled-andburlap trees will be removed from the tree and the tree pit. Containers will be removed and roots loosened before planting.
- Mulch will be placed around trees in a minimum 3-foot circle and 3-inch depth to protect trees from lawnmower damage and competition from turf; mulch will be kept away from tree trunks.
- Make sure there is proper visibility for signage. (See Appendix D)

Strategies for Proper Maintenance

- All tree maintenance will be performed in accordance with current ANSI Standards for Tree Care Operations (ANSI Z133.1) and/or current International Society of Arboriculture maintenance standards.
- Only thinning and reduction cuts will be used to prune live trees within City limits. Heading or topping should not be done.
- Newly planted trees by the ETB will be monitored weekly during droughts in the growing season for the first three years.
- Removed trees should be replaced with an appropriate tree not likely to cause any problems for which the original tree was removed.
- Public trees will be pruned in a timely manner to ensure their health and public safety.

Public vs. Private Responsibilities DOWNTOWN STREETSCAPE DISTRICT

In accordance with a request made by the Elkins Main Street Project, the city, by committee appointed by the Mayor, shall ensure that the following guidelines are adhered to with respect to trees in the downtown (COE Ordinance 93.091):

- Flowering trees shall receive pruning
- Application of organic fertilizer shall occur in spring and early fall
- Girdling of trees shall be prohibited and particular care shall be taken in circumstances where guy wire maintenance is required
- Mulching in spring shall occur
- Tree areas shall be maintained weed free
- Regular maintenance shall occur, including observation for insect infestation and disease or fungus
- Necessary watering shall occur in times of drought and close monitoring of water situation shall occur in the first three years after a tree is planted.

PUBLIC RIGHT OF WAYS/RESIDENTIAL AREAS

Participants in ETB adopt-a-tree or other tree giveaway programs are reminded that trees are living, growing things and require some ongoing care to thrive. The ETB can provide resources on tree planting and care for young trees.

To ensure a tree has the best chance of growing up healthy, residents must commit to the following actions to prepare to "adopt" or plant a new tree:

- Choose the right tree for the right place. If you have a larger space, consider planting a larger tree.
- Properly plant your tree, water every summer for 3-5 years and provide proper maintenance throughout its lifetime.
- Assume all future responsibility for maintenance, including summer watering, pruning, raking, etc.
- Take advantage of training resources on tree planting and learn about the basics of tree care to help your tree thrive.
- Call 811 to locate any utility lines, if planting in the tree lawn.

LIABILITY IN PUBLIC RIGHT OF WAYS/ RESIDENTIAL AREAS

The City of Elkins is not responsible for any damage or injury that may occur as a result of planting and maintaining trees in the public right of ways or on private residential property.

According to COE Ordinance 93.103:
Nothing contained in this sub chapter shall be deemed to impose any liability upon the city, its officers, agents or employees, nor to relieve the owner of any private property from the duty to keep any tree on the owner's property in such condition as to prevent it from constituting a hazard or impediment to travel or vision upon any street, alley or public place within the city.

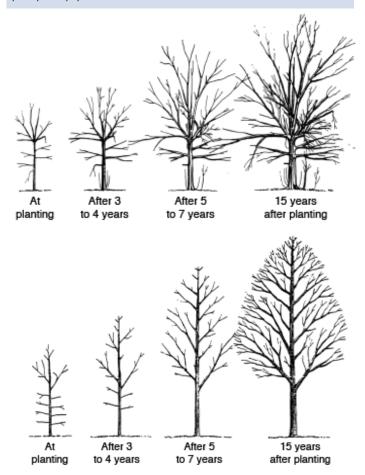
The city will have the right to request the removal of any dead or diseased trees on private property within the city, when such trees constitute a hazard to life and property, or harbor insects or disease which constitutes a

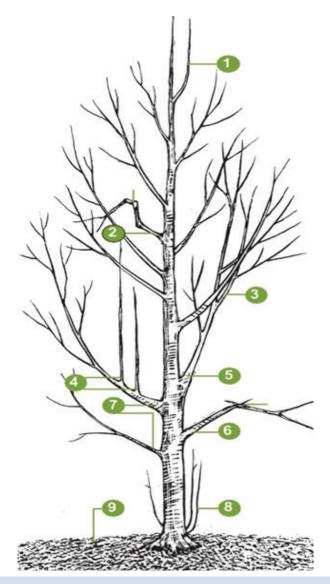


potential threat to other trees within the city (City Ordinance 93.100).

The ETB will notify the owners of such trees in writing upon the recommendation of the city tree arborist. In the event that the private property owner takes no action following the notification, the city may, with the approval of Council, proceed to take further action if determined to be warranted to protect life and property.

Tree forms showing unmaintained (top) vs. properly pruned



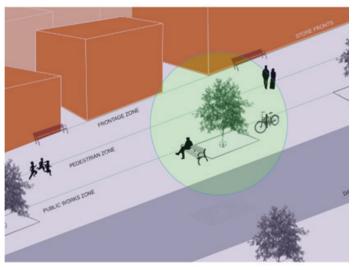


How to prune a tree

- Remove a competing leader. Cut back the less vigorous branch to prevent the development of two leaders.
- 2. Remove any malformed branch.
- 3. Remove any crossing branch. It may rub against and damage another branch.
- 4. Remove water sprouts.
- 5. Except for trees that have naturally ascending branches, remove any branch growing at a sharp or unnatural angle.
- Remove any broken or badly damaged branches.
- 7. Remove lower branches over time.
- 8. Remove suckers, which can take energy away from desirable growth.
- 9. Apply 2 to 3 inches of composted mulch to the base of the tree annually. Mulch should be kept 2 to 3 inches away from the trunk of the tree.

Strategies for Quality Design

- Important landscapes, such as business districts, neighborhoods, main entrances and exits, and city parks will be identified and considered in tree plantings.
- Traditional landscapes, such as neighborhoods with large trees, will be encouraged through tree planting support from the ETB. A positive image of the city, which includes a healthy urban forest canopy, should be encouraged through the planting of trees along streets.
- The final selection of trees for an important landscape should be made in the field while considering the elements of the landscape. The ETB will be available to assist any resident or business owner in making tree planting decisions.
- A certified arborist should be consulted when planning for tree planting in important landscapes such as downtown.
- Overall, the community forest will contain a diversity of tree species and varied ages. This diversity will be achieved by planting a variety of tree species. Upon request from the ETB, the city arborist may inspect declining or hazardous trees on public and private property.



A design plan should be in place when considering important sites. (Streetscape design created by Eric Schwartz, AFNHA)

- The tree species chosen for planting, besides meeting design criteria, must be biologically adapted to site conditions and well suited to the level of care it will receive.
- The Elkins Tree Board will utilize materials from the WV Division of Forestry for recommended species for urban plantings as well as advice from the city's certified arborist. (See Appendix B)
- Reduction and thinning cuts and other proper pruning standards should be used. More tree-friendly "directional pruning" is now employed to keep trees away from distribution lines. This technique is the accepted industry standard and is promoted by the National Arbor Day Foundation and the International Society of Arboriculture. Harmful topping practices should not be used.

An example of drastically pruned trees using inappropriate topping method.



Strategies for Funding

- Each January, the ETB will present an annual report and work plan to city council. The ETB will also submit a budget request needed to carry out the proposed work plan following proper City of Elkins administrative protocol.
- Grants from the WV Division of Forestry and other sources will be applied for and used for tree planting and other environmental projects.

- Local civic organizations and agencies will be contacted to discuss their participation and support of Tree Board activities.
 - Community, family, and corporate foundations will be identified and considered for assistance in funding tree planting and other Tree Board activities.
- When a tree evaluation is requested by a resident or business owner, a donation request will be included with the response.



Strategies for Public Participation and Education

Volunteerism in urban forest projects play an important role in connecting the community to the work of the ETB. Simple acts of digging, planting, mulching, and watering trees creates an attachment to physical place and an appreciation for the planted tree.

Participation in the planting process creates stakeholders out of community members and can galvanize a volunteer network that provides pro bono physical labor for physical projects, thus maximizing ETB project capacity and instilling constituent support for projects.

- Residents, organizations, and schools will be offered opportunities to participate in tree plantings and other associated work projects.
- Residents and organizations will be given opportunities to learn how to maintain trees and keep them healthy.
- Educational materials concerning trees and other natural resources will be available to schools.



Tree donations and volunteer manpower have come from utility companies (such as MonPower shown here), garden clubs and private companies.

- Arbor Day will be celebrated as a reminder of the importance of the community forest, with the involvement of public officials, local schools, and other organizations as appropriate.
- News articles, releases and social media will be used to explain noteworthy activities, including planting, tree removals, pruning, and budget requests.
- Workshops and other educational programs will be sponsored by the ETB in partnership with agencies or other organizations as appropriate.
- The Elkins Friends of Trees group will serve as a volunteer base for the ETB and provide hands-on assistance and other types of support.
- Create opportunities for public input on the annual work plan goals and other aspects of the Urban Forest Management Plan.



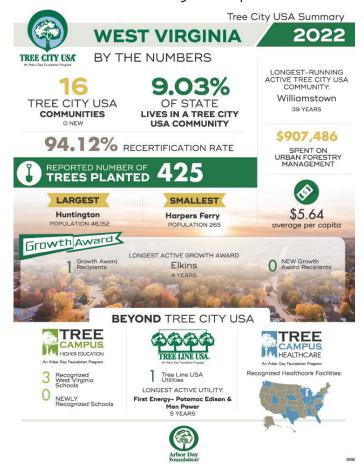
The ETB will continue to provide educational outreach at community events and offer workshops.

Strategies for Envisioning

Utilizing the long-term goals as a guide, the ETB will create an annual work plan that responds to residential and business community stakeholders. This work plan identifies what the ETB will focus on during the following year, incorporating the objectives and strategies developed in the management plan.

In 2023, the ETB conducted an online survey to receive input from city residents on issues and priorities related to trees and met with downtown business owners. This important information helped the Board more fully understand citizen perceptions as well as provide important data on how to better communicate with our constituents.

The ETB recognizes that an annual work plan can often be dependent on day-to-day realities such as funding, needs, and politics, but it will strive to reflect the objectives, goals, and vision of the management plan.



Elkins has a long tradition of being a leader in the state for its commitment to a healthy urban forest.

LONG-RANGE **GOALS** 2024-2029

The Elkins Tree Board is committed to achieving by the year 2030 an urban forest that is safe, healthy, diverse, pleasing to the senses and functional -- an urban forest attractive to birds and other wildlife and a place in which future generations can experience the abundant benefits of trees.

► Strive to increase Elkins' canopy coverage.

Elkins is in the lower tier of registered Tree City USA cities in canopy coverage, at just over 30%. Optimal canopy coverage for an urban area is 40% or greater.

► Advocate for a paid city landscaper/urban forester employee or contractual services.

City foresters play an important role in ensuring the viability and continuity of urban greenscapes. They have the technical knowledge to carry out city tree policies outlined in the urban forest management plan.

Create a city-wide neighborhood greenscape needs assessment.

Inventories and evaluations are part of the foundation of planning and good management. They can provide a picture of the species and size composition of trees along the street in our community. Assessments also help identify neighborhoods and other areas needing increased canopy.

►Initiate a Heritage Tree program.

Heritage trees are those that identified as important because of their great size, notable longevity, unusual form, location at the extreme of their natural growing range, or association with history. Saving heritage trees in our community extends a link across generations. It helps develop values for things beyond the material, values almost of a spiritual nature.

Communities want healthy urban forests growing in their midst because trees:

Produce oxygen — enough on each acre for 18 people every day.

Absorb carbon dioxide (CO2), a factor in global warming. Over a year, trees can absorb enough CO2 per acre to equal the amount you produce by driving 26,000 miles.

Filter particle pollutants such as dust, ash, pollen and smoke out of the air.

Cool the urban "heat island" effect of thermal energy absorbed by concrete, steel and asphalt. Research shows that urban heat islands can be 3 to 10 degrees hotter than the surrounding countryside.

Add beauty and character to urban landscapes.

Reduce stress and promote a calm frame of mind.

Enhance community economic stability by attracting businesses and tourists.



Diminish noise pollution.

Create local mini ecosystems that provide habitat and food for birds and animals, biodiversity that would otherwise be diminished or absent from urban areas.

Reduce soil erosion, stream and surface water runoff from storms. Without trees, cities would need to increase sewage and stormwater drainage channels and wastewater treatment capacities to handle increased runoff.

* Courtesy WV Division of Forestry, Urban Forestry

2024 Elkins Tree Board Work Plan

Action	Associated Goal/ Objective	Estimated Budget	Responsible Party
Additional tree identification tags at Glendale Park	1-Public Education	\$250 from National Tags	ETB
Work with Operations to complete Downtown tree grate installation project	2-Tree Planting/ Maintenance	Funds already allocated/last trees to be replaced with new grant (below)	ETB/COE
Participate with Annual Arbor Day/Earth Day and other activities	1-Public Participation/ Education	Arbor Day tree donated by WV DOF \$100 Earth Day seedlings	ETB WV DOF Our Town
Institute Adopt-A-Tree Program in the Spring	2-Tree Planting	\$2,000 for purchase of trees/\$250 door hangers	ETB/COE Attorney approval required on application form
Apply for WV DOF Community Equi-Tree Grant for trees and nursery project	2-Administration & Tree Planting/Fundraising	No match on the part of the applicant. Will require upfront payments.	ETB/Council required to accept grant as per protocol
Investigate opportunity for D&E forestry student assistance	3-Administration (tree inventory)	\$0	ETB/D&E
Host Public Talks & Workshops	1-Public Participation/ Education	\$200 speaker/materials fees	ETB TV Master Naturalists Emma Scott GC
Continue working with city arborist: city trees maintenance, residential tree and species advice	3-Maintenance	Separate COE contractual services budget	COE (funding) ETB (collaboration)
Host Downtown Tree Streetscape Completion Celebration; Create a Tree Walk	1-Public Participation/ Education	\$0 Possible AARP Community Challenge no match grant	ETB AARP, possibly partner with additional non- profit
Purchase/maintain equipment, tree maintenance supplies	3-Administration	\$400	ЕТВ
Complete Glendale Trees publication	1-Public Education	Copying costs this and other publications-\$200	ЕТВ
Encourage volunteerism	1-Public Participation	Supplies for volunteer workdays-\$300	ЕТВ
Review and improve current tree ordinance	3-Administration	Potential attorney fees \$300	ETB and city attorney

Estimated Budget \$4,000

Appendix A: Elkins Tree Ordinances

§ 93.090 CERTAIN TREES PROHIBITED.

- (A) It shall be unlawful for any person to plant or maintain upon his or her property or upon any street adjoining thereto any tree commonly known as the North Carolina poplar or any other shade tree which, by its nature, will tend to plug up or damage sewers, sidewalks, streets or other property.
- (B) If any such tree be planted after the effective date of this code, it shall be the duty of the Superintendent of Streets to immediately cut down and destroy it, provided, that if the Superintendent of Streets does not have personal knowledge that such tree has been planted since that time, a notice and proceeding, shall be had before the Council; and, if it be ascertained by the Council that such tree was planted since the effective date of this code then such tree shall be declared a nuisance and the owner required to abate the nuisance.

(1991 Code, § 18-10) Penalty, see § 93.999

Statutory reference:

Authority of Council to provide for the protection of shade and ornamental trees, whether on public or private property, and for the removal of limbs of trees when in a dangerous condition, see W.Va. Code § 8–12–5(29)

§ 93.091 TREE GUIDELINES.

In accordance with a request made by the Elkins Main Street Project, the city, by committee appointed by the Mayor, shall ensure that the following guidelines are adhered to with respect to trees in the downtown:

- (A) Flowering trees shall receive pruning;
- (B) Application of organic fertilizer shall occur in spring and early fall;
- (C) Girdling of trees shall be prohibited and particular care shall be taken in circumstances where guy wire maintenance is required;
 - (D) Mulching in spring shall occur;
 - (E) Tree areas shall be maintained weed free;
- (F) Regular maintenance shall occur, including observation for insect infestation and disease or fungus; and
- (G) Necessary watering shall occur in times of drought and close monitoring of water situation shall occur in the first three years after a tree is planted. (Ord. passed 3-4-1993)

§ 93.092 DEFINITIONS.

For the purpose of this subchapter, the following definitions shall apply unless the context clearly indicates or requires a different meaning.

ELKINS TREE BOARD. The body which advises the city on matters affecting the urban forest. MUNICIPALITY. The City of Elkins, Randolph County, West Virginia.

PARK. Includes all public parks, the ownership and control of which as vested in the city.

PERSON. Any person, firm, partnership, association, corporation, company or organization of any kind.

PROPERTY OWNER. The person owning designated property as shown by the County Assessor's plat of the City of Elkins, as the case may be.

PUBLIC PLACES. Includes all public rights-of-way owned by the City of Elkins, Randolph County. PUBLIC TREES. All shade and ornamental trees now or hereafter growing on any street or any public right-of-way or grounds owned or controlled by the city.

REMOVE. The cutting down, damaging or taking of public trees.

STREET or HIGHWAY. The entire width of every public way or right-of-way when any part thereof is open to the use of the public, as a matter of right for the purpose of vehicular and pedestrian traffic, and extending from the property line to property line.

TREE ARBORIST. The person within the committee who provides technical expertise and advice to the City Tree Board.

URBAN FOREST. All trees located on city-owned or controlled property. (Ord. 076, passed 7-3-2008; Ord. 235, passed 4-6-2017)

§ 93.093 CREATION AND ESTABLISHMENT OF CITY TREE BOARD.

There is hereby created and established a City Tree Board for the city of which will consist of no less than six and no more than eight members, who are citizens and residents of Randolph County recommended by the City Tree Board, and who shall be appointed by the Mayor with the approval of the City Council. The members will come from different interest groups including, but not limited to, homeowners, tree professionals and City Council. Membership on Council does not disqualify any person for appointment to the City Tree Board, if otherwise qualified, however, not more than two members of Council may be so appointed. At least one of the members of the City Tree Board shall be a member of Council.

(Ord. 076, passed 7-3-2008; Ord. 235, passed 4-6-2017; Ord. 284, passed 7-1-2021)

§ 93.094 TERM OF OFFICE.

The term of the persons to be appointed will be three years. The term of two members appointed to the first Board will be only one year and the term of two members of the first Board shall be for two years. Following the terms of the members of the first Board, the terms shall be three years. In the event that a vacancy shall occur during the term of any member, a successor may be appointed for the unexpired portion of the term. Members may serve consecutive terms without restriction. Any member who is unable or unwilling to serve on the Tree Board may be dismissed by the Board, due to continual or consecutive absences, by a majority vote of members present at any meeting. Replacement of any member who is dismissed shall be done in the same manner as provided for herein.

(Ord. 076, passed 7-3-2008; Ord. 235, passed 4-6-2017)

§ 93.095 COMPENSATION.

Members of Board will serve without compensation. (Ord. 076, passed 7-3-2008; Ord. 235, passed 4-6-2017)

§ 93.096 DUTIES AND RESPONSIBILITIES.

- (A) It will be the responsibility of the Board to study, investigate, counsel, develop and administer a written plan for the care, preservation, pruning, planting, replanting, removal or disposition of trees and shrubs in parks, along streets, and in other public areas. Such plan will be presented to the Council and upon their acceptance and approval shall constitute the official comprehensive city tree plan. Any changes to the city tree plan shall be presented to Council for its consideration.
- (B) The Board will promote and supervise the establishment of a tree inventory for public trees. The inventory should be updated as often as practicable.
- (C) The Board shall consider, investigate, make findings, report and recommend upon any special matter or question coming within the scope of its work. The Board shall report the results of its investigations to Council within a reasonable time.

(Ord. 076, passed 7-3-2008; Ord. 235, passed 4-6-2017)

§ 93.097 OPERATION.

The Board will choose its own officers, make its own rules and regulations, and keep a journal of its proceedings. A majority of the members will be a quorum for the transaction of business. (Ord. 076, passed 7-3-2008; Ord. 235, passed 4-6-2017)

§ 93.098 TREE SPECIES TO BE PLANTED.

The City Tree Board will develop and maintain a list of desirable trees for planting along streets in three size classes based on mature height: small; medium; and large. Efforts will be made to ensure a sufficient diversity of tree species. A list of trees not suitable for planting will also be created by the Tree Board. All species of trees to be planted on public property shall be made known to the Tree Board.

(Ord. 076, passed 7-3-2008; Ord. 235, passed 4-6-2017)

§ 93.099 CITY ARBOR DAY.

The City Tree Board will specify a "City Arbor Day", to be determined annually by the Tree Board, and approved by the Council.

(Ord. 076, passed 7-3-2008; Ord. 235, passed 4-6-2017)

§ 93.100 DEAD OR DISEASED TREE REMOVAL ON PRIVATE PROPERTY.

The city will have the right to request the removal of any dead or diseased trees on private property within the city, when such trees constitute a hazard to life and property, or harbor insects or disease which constitutes a potential threat to other trees within the city. The City Tree Board will notify in writing the owners of such trees upon the recommendation of the tree arborist. In the event that the private property owner takes no action following the notification, the city may, with the approval of Council, proceed to take further action if determined to be warranted to protect life and property. (Ord. 076, passed 7–3–2008; Ord. 235, passed 4–6–2017; Ord. 284, passed 7–1–2021)

§ 93.101 TREE PLANNING MEETINGS.

Property owners, business owners, neighborhood associations and any other interested parties are encouraged to attend planning meetings with the Tree Board regarding proposed planting, pruning or tree removal programs.

(Ord. 076, passed 7-3-2008; Ord. 235, passed 4-6-2017; Ord. 284, passed 7-1-2021)

§ 93.102 REVIEW BY THE COUNCIL.

The Council shall have the right to review the conduct, acts and plans of the City Tree Board. The City Tree Board shall file an annual report of its actions with Council on or before December 31 of each year.

(Ord. 076, passed 7-3-2008; Ord. 235, passed 4-6-2017)

§ 93.103 LIABILITY.

Nothing contained in this subchapter shall be deemed to impose any liability upon the city, its officers, agents or employees, nor to relieve the owner of any private property from the duty to keep any tree on the owner's property in such condition as to prevent it from constituting a hazard or impediment to travel or vision upon any street, alley or public place within the city. (Ord. 284, passed 7-1-2021)

Appendix B: Recommended Urban Trees

Small trees less than 30' high that need a tree lawn 2'X4' deep. Suitable under utility lines.

Eastern redbud (Cercis canadensis) Paperbark maple* (Acer griseum) Serviceberry (Amelanchier arborea) Lilac tree* (Syringa reticulata) Witch hazel (Hamamelis virginiana) Crabapples* (Malus sp.) Hawthorn (Crataegus sp.) Choke Cherry (Prunus virginiana)

Fringetree (Chionanthus virginicus) Flowering dogwood (Cornus florida) American plum (*Prunus americana*) Mountain ash (Sorbus americana) Sourwood (Oxydendrum arboreum) Winged sumac (Rhus copallinum) Winterberry (Ilex verticillata) Pawpaw (Asimina triloba)

EVERGREENS American holly (*llex opaca*) Arborvitae (Thuja occidentalis)

Medium trees 30-50 feet that need 25' from buildings and 4' tree lawn and no utility lines

American hornbeam (Carpinus caroliniana) American hophornbeam (Ostrya virginiana) Black gum (Nyssa sylvatica) Hackberry (Celtis occidentalis) Honey locust (Gleditsia triacanthos) Kentucky vellowwood (Cladrastis kentukea)

Chinkapin Oak (Quercus muehlenbergii) Red maple (Acer rubrum) Black willow (Salix nigra) Common Persimmon (Diospyros virginiana) Carolina silver bell (Halesia carolina)

Eastern red cedar (Juniperus virginiana) Virginia pine (Pinus virginiana)

EVERGREENS

EVERGREENS

Tall trees 50-90 feet that require a 8' tree lawn and no utility lines. Ideal for parks, open greenspaces Shagbark hickory (Carya ovata)

American Beech (Fagus grandifolia) Cucumber Tree (Magnolia acuminata) Yellow buckeye (Aesculus flava) Northern red oak (Quercus rubra) White oak (Quercus alba) Bur oak (Quercus macrocarpa) Sweetgum (Liquidambar styraciflua) American elm (Ulmus americana) Tulip poplar (Liriodendron tulipifera) Gingko* (Ginkgo biloba) Kentucky coffeetree (Gymnocladus dioicus) Willow oak (Quercus phellos)

Dawn Redwood* (Metaseguoia glyptostroboides) Pin oak (Quercus palustris) Post oak (Quercus stellata) Shumard oak (Quercus shumardii) Sugar maple (Acer saccharum) Shingle oak (Quercus imbricaria) River Birch (Betula nigra) Swamp white oak (Quercus bicolor) Sycamore (*Platanus occidentalis*) American basswood (Tilia americana)

Eastern white pine (Pinus strobus) Southern magnolia (Magnolia grandiflora, zone 6a only) Eastern hemlock (Tsuga canadensis)

Those indicated with * are non-native

Non-native Invasive Trees

The following trees are considered invasive species in our region and should not be planted: Callery pear (including Bradford pears), empress ("Royal Paulowina) tree, Norway maple, hybrid ("Lombardy") poplar, Tree-of-Heaven, white mulberry, mimosa, common buckthorn, Amur ("Japanese") corktree, European privet, bamboo. This is not an exhaustive list and caution should be used to avoid the introduction of potential harmful species. Use scientific names to confirm species identification when making purchases. The ETB encourages the use of native trees.

The Elkins Tree Board is available to provide advice as are urban foresters with the WV DOF.

Appendix C: Elkins Streetscape Master Plan



MATERIALS

STREET TREE RECOMMENDATIONS

SPECIES SELECTION

Selecting the right tree species is an essential aspect of creating a healthy and sustainable urban forest in the City of Elkins. The ideal tree species should be well-suited to the local climate and environmental conditions, resistant to common pests and diseases, and able to thrive in urban environments. The use of tree species native to West Virginia is generally preferred, however some non-native species have shown to be appropriate selections for urban environments. Below, Figure 4.4 Street Tree Recommended Species list several street trees which may be appropriate selections for the City of Elkins.

may be appropriate selections for the City of Elithis.				
Scientific Name	Common Name	Comments		
Acer rubrum	Red Maple	Multiple cultivars available		
Amelanchier spp.	Serviceberry	Small, can be used under power lines		
Betula nigra	River Birch	'Hertitage' cultivar preferred		
Carpinus caroliniana	American Hornbeam			
Cercis canadensis	Eastern Redbud	Small, can be used under power lines		
Crataegus spp.	Hawthorn			
Diospyros virginiana	Common Persimmon			
llex opaca	American Holly	Evergreen		
Magnolia virginiana	Sweetbay Magnolia	Small, can be used under power lines		
Nyssa sylvatica	Black Gum	Salt tolerant		
Plantanus occidentalus	American Sycamore	Can be weak wooded		
Taxodium distichum	Bald Cypress	Tolerates wet soils, storm- water		
Tilia cordata	Littleleaf Linden			

The West Virginia Division of Forestry publishes a more thorough list of street trees which should be referenced when selecting species.

TYPICAL TREE PLANTING

Proper street tree planting is essential for creating healthy and long-lasting urban forests. One key consideration is the removal of a minimum area of 24 square feet (4'x6') from the concrete sidewalk area to permit tree planting. This provides adequate space for the tree roots to grow, helping to ensure healthy and vigorous growth.

Before planting the tree, the designated area should be excavated to a minimum depth of 30 inches to provide enough space for the tree roots to expand. It is important to ensure that the area is free of any utilities or other obstructions that could interfere with root growth or cause damage to the tree.

Proper planting techniques are also important, such as backfilling the hole with a mixture of soil and organic matter and watering the tree regularly to ensure adequate moisture. Staking the tree may also be necessary to prevent wind damage during the early stages of growth. Proper street tree planting is essential for creating healthy and sustainable urban forests that provide numerous benefits, including improved air quality, reduced urban heat island effect, and increased property values.



Existing street tree in a City of Elkins branded tree grate along 3rd Street

Tree grates should be utilized on street trees which are surrounded by concrete. Tree grates help improve the overall health and longevity of a tree by providing adequate space for roots to grown and allowing water and air to reach the roots. Without tree grates, trees are more likely to be damaged by soil compacting from foot traffic or other activities.

Tree grates also provide a number of aesthetic benefits, as they can help to create a more attractive and cohesive streetscape design. The City of Elkins has a preferred tree grate design which is repeated in numerous locations throughout the project area. Additionally, tree grates can serve as a wayfinding element, directing pedestrians to safely navigate around the trees and making the overall streetscape more user-friendly.

Finally, tree grates can help to reduce maintenance costs by preventing soil erosion and reducing the need for repairs to sidewalks and other infrastructure. By protecting trees and improving their overall health, tree grates can help to ensure that street trees continue to provide numerous environmental and social benefits for years to come.

STRUCTURAL CELL SYSTEM PLANTING

A structural cell system is a modular underground framework that is used to provide adequate soil volume and support for street trees. This system consists of interlocking panels or crates that create a hollow space beneath the sidewalk, which is then filled with soil, gravel, and other materials to support healthy tree growth.

Some of the benefits of a structural cell system for planting street trees include:

- Increased soil volume: A structural cell system allows for a larger volume of soil, which promotes healthy root growth and can improve tree health and longevity.
- Improved stormwater management: The hollow space created by the structural cell system can also function as a stormwater retention area, reducing runoff and improving water quality.
- Reduced damage to sidewalks: Traditional tree
 planting methods can cause damage to sidewalks
 as roots grow and expand. A structural cell system
 can prevent this damage by containing the roots.

- Enhanced pedestrian safety: By preventing sidewalk damage and uneven pavement caused by root growth, a structural cell system can improve pedestrian safety and reduce trip hazards.
- Improved utility conditions: Structural cell systems can be modified as they are installed to work around existing utilities. This reduces the risk of a tree root impacting a vital utility such as a sanitary line or gas line.

Overall, a structural cell system for planting street trees can provide numerous benefits to communities, including improved tree health, reduced sidewalk damage, and enhanced stormwater management.



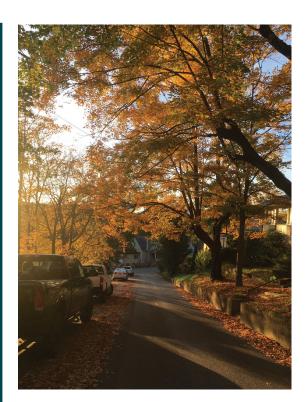
3D Visualization of a structural cell system used for street tree planting

Appendix D: Tree Setback Recommendations

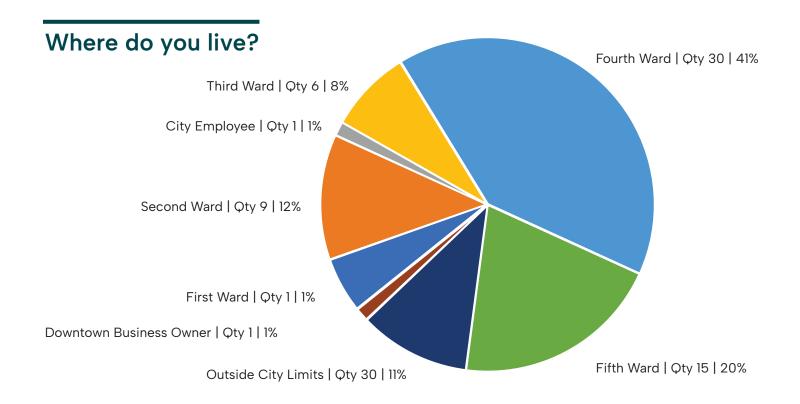
Please note that street signage must be clearly visible when planting a tree in the public right of way. Street signage includes regulatory, warning, transit, and other City or state DOH installed signs.

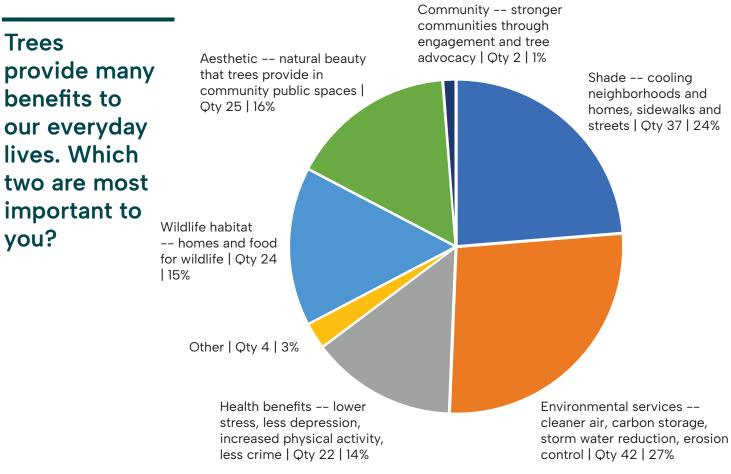
Vegetation planted in the right-of-way should not obstruct sight of signs or sight distance at corners in order to clearly view pedestrians and traffic. This can usually be accomplished by ensuring trees are planted the proper distance from the corner and meet vertical clearance requirements, and ensuring that vegetation other than trees be kept at a height of three feet or lower, depending on the geography of the location.

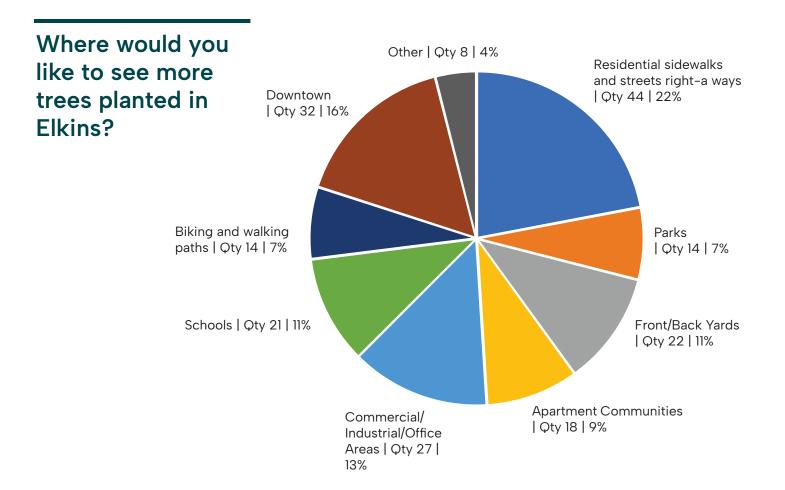
Minimum Tree Placement Setback Checklist	Distance (in feet)
Center Line of Tree to Center Line of:	
Street Corner	25
Stop and Yield Signs	25
Utility Poles	15
Other Traffic Control Signs	5
Center Line of Tree to Edge of:	
Driveways	5
Face of Curb	2.5
Pavement	2
Edge of Tree to Edge of:	
Utility Worker Access Lids	5
Gas Shutoff Valves	5
Fire Hydrant and Hydrant Branches	10
Water Meter, Water Services and Water Mains	5
Storm Inlets, Catch Basins and Manholes	5

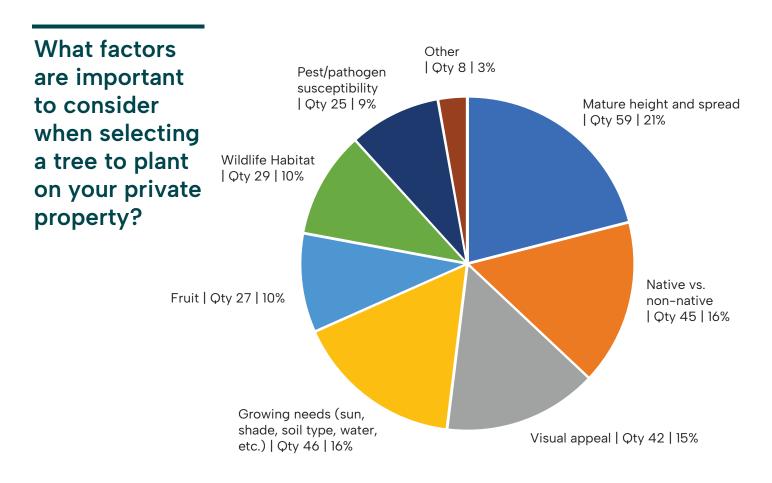


Appendix E: Management Plan Public Survey

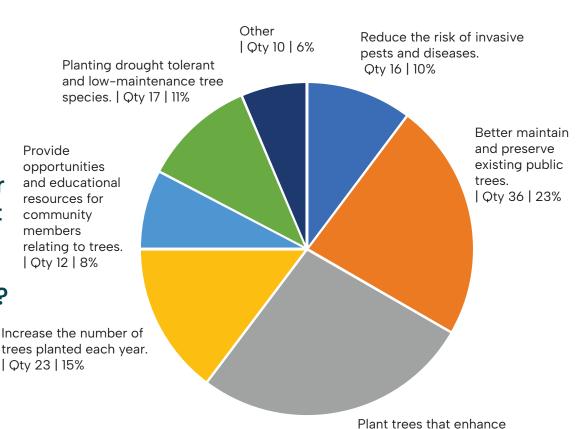




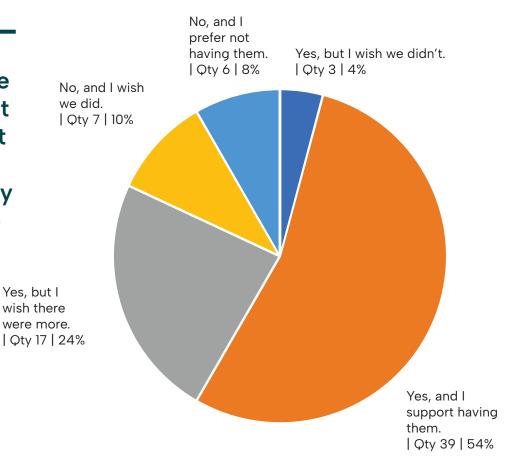




Elkins'
Urban Forest
Management
Plan will be a
comprehensive
guide for the
City's tree
management for
the future. What
would you like
to see the Tree
Board prioritize?

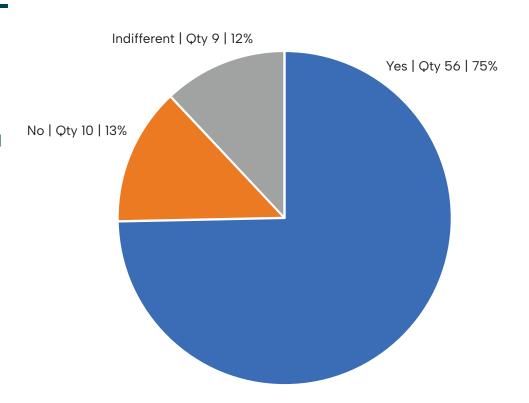


Does your neighborhood have street trees? Street trees are trees that are planted in the public right-of-way near and along the roadways which shade and grow over the road.

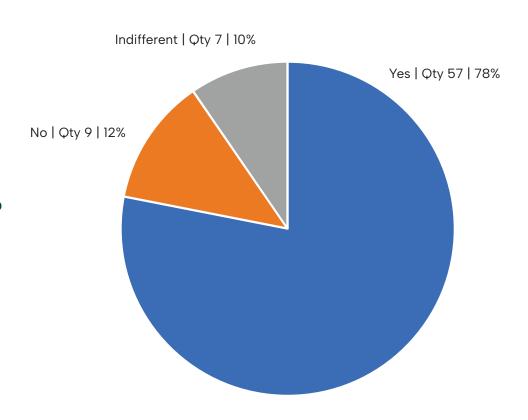


native pollinators and wildlife habitats. | Qty 42 | 27%

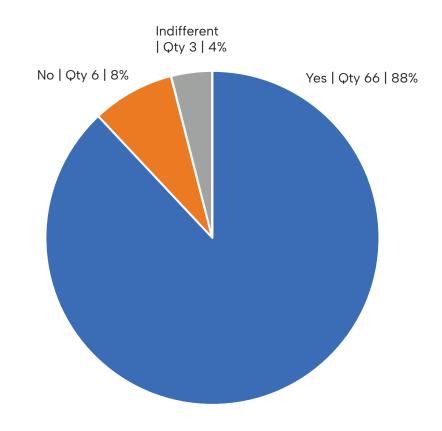
Are trees on a property or in the neighborhood important to you when choosing (buy or rent) a residence?



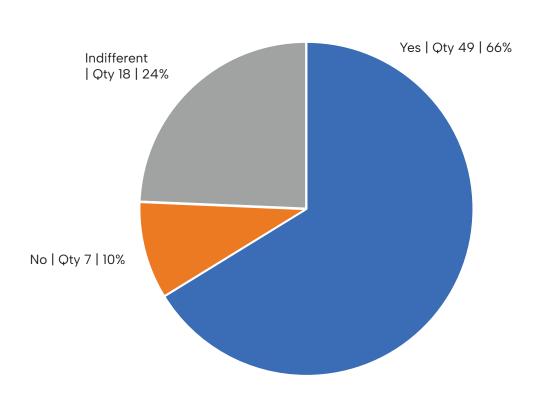
Would you support regulations designed to encourage tree plantings and maintenance by builders and developers?



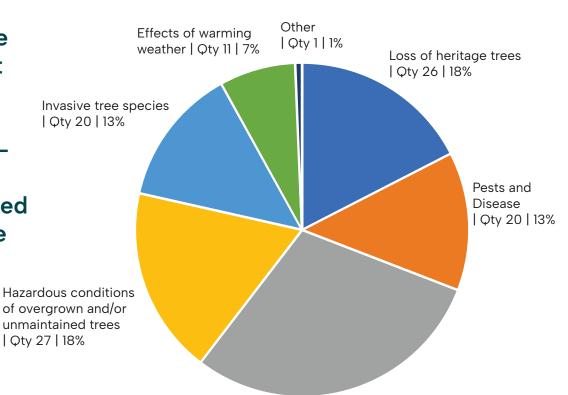
Do you support continued municipal funding to maintain and improve the urban forest on public property?



Would you like to see greater dissemination of information of trees, their value and management?

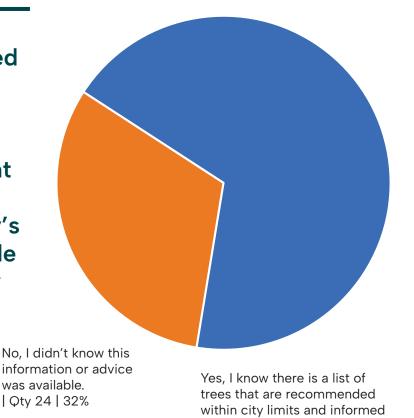


There are many threats that face the urban forest in a changing environment. Which two treerelated threats are you interested in learning more about?



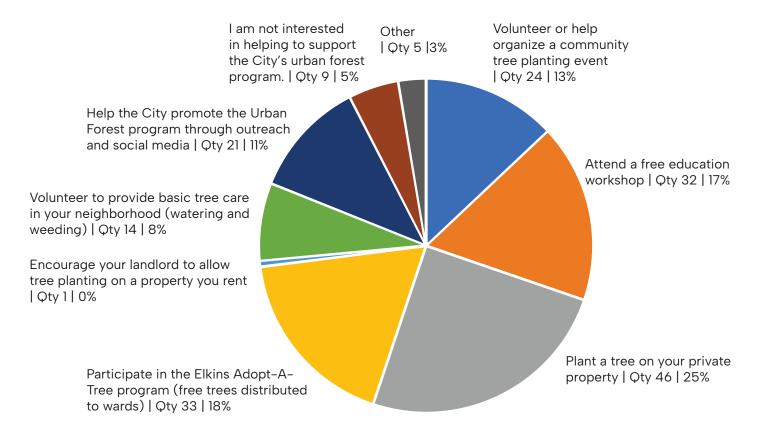
Conflicts with City infrastructure (sidewalks, overhead utilities, uplifting driveways, etc.) | Qty 44 | 30%

Did you know that Elkins utilizes guidelines established by the West Virginia Division of Forestry when considering tree plantings within city limits on city right of ways. Additionally, Tree Board members and the city's certified arborist are available to provide assistance to city residents when making tree planting decisions.

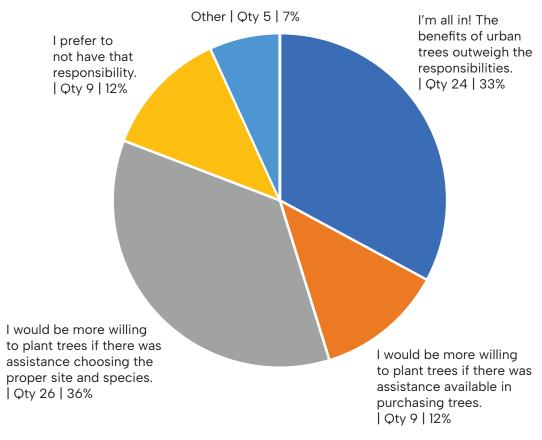


advice available. | Qty 52 | 68%

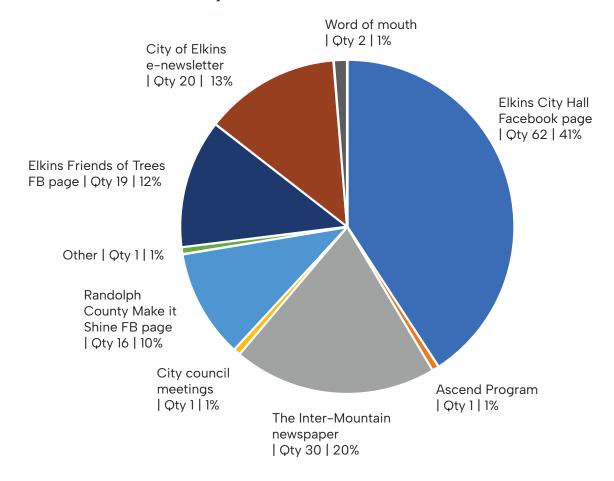
Do you love your City's urban forest? Which of the following activities would you be willing to participate in?

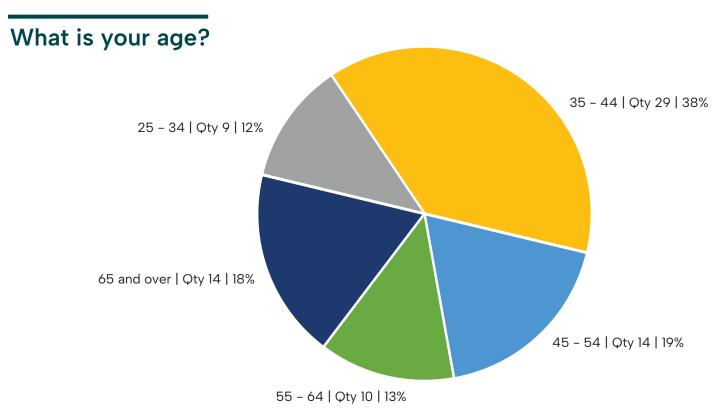


Owning and maintaining a tree comes with many responsibilities. Please choose your most accurate response to that statement.



How do find out about city initiatives that matter to you?





Please share any additional comments or insight for the Urban Forest team to consider in the development of the Elkins Urban Forest Management Plan.

Several dead trees on Elm st. Very dangerous. Why has property owner not been cited?

Replant street trees and maintain them where they have been taken down, plant trees that are designated as street trees, plant big enough trees that will not need to be replaced when they do not make it due to being too small when planted.

If a City resident would like to plant a tree, such as a sugar maple, can you buy it from the Kump Nursery?

Some of the trees in the tree lawns throughout the Wards are diseased, or dying and need to be removed so that new trees can take their places. We would have gladly adopted new trees this year if we had the means to remove the box elder tree in our tree lawn.

I'd like to see more trees downtown and also in areas throughout the city where there are few trees.

Downtown trees block vision at intersections. Especially at Davis Ave/Fourth St in front of City Hall. Many trees have low branches and are in the way when walking on downtown sidewalks. Trees are also in the way when getting out of passenger side of parked cars. (Along with benches) Some tree grates are not flush with sidewalks and cause tripping. And the circle in tree grates have become ashtrays and trash cans. Not appealing.

Enforce or offer free removal service for dead/ dying trees on right of ways that endanger cars and compromise street/neighborhood aesthetic.

1) I don't like that we cut down trees in the downtown so regularly—they appear to be healthy trees. I would rather we grow a large canopy downtown. I would rather we cut the sidewalk to expand the planting beds and include complementary pollinator gardens. 2) I would also like to see an educational tree mini–forest at the Forest Service building and at Glendale Park. 3) I would like support on tree maintenance. 4) I would love to see a free orchard with fruiting bushes and herbs near the depot and at Glendale.

Downtown trees need low branches trimmed so they don't scratch cars and poke people as they walk on the sidewalks. Low branches don't grow higher, they just get thicker. Choose trees that can be maintained in the chosen space without needing to be removed in 5 years. Choose trees that their roots won't upheave the sidewalk, curbs and pavement.

If you put trees on your so called easements, then city of elkins should be responsible for root damage to sidewalks, driveways etc.... Not the landowner or business owner

Let the trees in town grow!!!!!

Stop planting red maples everywhere. They're junk and experience top death and dead limbs frequently. Sugar maple is a better alternative. Local tree genetics should be taken into account – we shouldn't be using an out of state seed source because the genetics can be much different than what we have here. Seed (or seedlings) could be collected and grown to planting size to keep genetics local.

Many of the main thoroughfares (Randolph & Harrison Avenues) are hideous as far as (no or very limited number of) trees and landscaping. These main roads – along with Third and Davis – are NOT aesthetically appealing to visitors or locals. They look unkempt and like the city doesn't care much about providing a pleasing visual experience. They look like they were once possibly great streets but over time older trees have been cut down and never replaced and no one cares about anything except pouring more concrete. There's certainly is not shade or benches to make anything inviting to travel these streets much less stop and visit the businesses along them.

Pick trees more suitable for an urban sidewalk project instead of having to dig them up and replace them every 5 years. That is a waste of time and resources.

I wish my neighbors took care of pruning their trees and shrubs. Their place is a mess and hazard.

I am so thankful for this program and the work you are doing to help out town.

Thanks for all that the tree board is doing for our community! Elkins High School might benefit from new or additional trees on the campus.

We need more trees and native wildflowers

Keep up the good work! You are making a difference. (I have 20 trees on my property).

The Elkins Tree Board is grateful for the guidance provided by "Community Tree Plans: A Guide for Tree Commissions and Environmental Advisory Councils," by Bill Elmendorf, Assistant Professor of Community Forestry. Prepared by Penn State with assistance from the Pennsylvania Urban and Community Forestry Council and support from the Pennsylvania DCNR Bureau of Forestry.

Members of the 2024 Elkins Tree Board and year appointed

Marilynn Cuonzo, Chair, 2014 Linda Burke, Vice Chair, 2019 Aira Burkhart, Secretary, 2022 Linda Silva, Treasurer, 2014 Nanci Bross-Fregonara, Communications, 2019 Iris Allen, 2023 Sam Golston, 2018



From left to right: Linda Burke, Iris Allen, Marilynn Cuonzo, Nanci Bross-Fregonara, Sam Golston, Linda Silva and Aira Burkhart.



Urban Forest Management Plan contributors also include:

Eric Schwartz, AFNHA AmeriCorps member, 2020
West Virginia Division of Forestry, Urban Forestry program
Arboriculture & Urban Forestry Program, Davis College,
School of Natural Resources, West Virginia University



Cover photo by Roberta Dye for The Wees Neighborhood Historic District Plan



2023 ANNUAL REPORT

Elkins Tree Board Members

Marilyn Cuonzo (Chair); Linda Burke (Vice Chair); Aira Burkhart (Secretary); Linda Silva (Treasurer); Nanci Bross-Fregonara (Communications); Sam Golston and Iris Allen

The Elkins Tree Board (ETB) was responsible for more than 100 trees being planted in our community as part of the city's Adopt-a-Tree program, seedling plantings at the ETB nursery, Arbor Day, and the downtown streetscape project. We continue to work closely with Friends of Trees, Our Town, the Emma Scott Garden Club and WV Master Naturalist program to mutually support green-related initiatives. Support from the City of Elkins, especially the Street and Operations departments and Parks and Recreation; the West Virginia Division of Forestry; and the community, continues to be inspiring.



January 2023

 Tree City Recertification and Growth Award applications submitted to WV Division of Forestry (WV DOF). Both were successfully received and awarded. Grant for fourth and final WV DOF Demonstration City program also approved.



• The ETB hosted its first Winter Walk Tree ID and Birding event at Glendale Park. Over 50 residents attended the event.

March 2023

- Work begins on the final stages of the Demonstration City Grant-funded downtown tree planting project. The City of Elkins removing more tree boxes and trees at nine locations and new trees replaced by Mitchell Tree Services. Four trees were also planted at City Park. Outside of the grant, the ETB funded two trees planted at the Highlands Trail bike path overlook. Downtown and Darden Garden trees were pruned as part of the grant thereby enhancing their health and shape.
- The ETB joined Our Town's Spring event in The Atrium. ETB had a booth with hands-on activities and tree planting information, and hosted a well-attended Fruit Tree Pruning Workshop at the Kump House afterwards.

April 2023

- Arbor Day 2023 celebrations began on Earth Day at the Elkins City Park
 at which the ETB handed out 50 red spruce seedlings and manned an
 information booth. This was a shared event with Elkins Women's Club and
 other agencies.
- On the actual Arbor Day, there were three tree plantings: ETB's at City Park, Emma Scott Garden Club's at the Elkins Library and two trees donated by Kroger at Glendale Park.



Winter Tree ID Walk at Glendale Park



Fruit tree pruning workshop at heirloom apple orchard, Kump House







Arbor Day 2023 commemorations: Glendale Park, Elkins City Park and Elkins City Library



New trees planted on the Highlands Trail

May 2022

- Two ETB members traveled to Vienna, WV to see an example of a grantfunded, multi-format interpretive panels and urban walks system.
- Created and installed tree ID tags for the new Kump House Arboretum.
- Purchased Friends of Trees ornaments for National Christmas Tree.

June-August 2023

 Monthly maintenance continued at the Kump House ETB tree nursery and orchard. Projects included fence repair, weeding and pruning of heirloom apple trees and planting seedings. WV Master Naturalists, Friends of Trees and Mountain School volunteers assisted with efforts.

September 2023

• ETB produces and conducts survey about urban trees as part of creating the city's first Urban Forest Management Plan.

October 2023

- Adopt-A-Tree fall event held with donated to homeowners to help green the City. Several large trees were also provided to Elkins Parks and Recreation for Glendale Park. ETB hosted a tree planting workshop before tree give-away.
- ETB participates in D&E volunteer day by supervising the lacrosse team in the Darden Garden clean-up.

November 2023

- Work begins on gathering ideas for new no-match WV DOF Equi-City grant program designed at the federal level to increase tree canopies.
- ETB participates in D&E volunteer day by supervising the lacrosse team in the Darden Garden clean-up.

December 2023

 Fourth WV DOF Demonstration City Grant nears completion with tree beds expanded with assistance of private contractor.

LOOKING AHEAD FOR 2024

- Present the ETB-created Elkins Urban Forest Management Plan to City Council
- Successfully apply for a WV DOF Equi-City grant for downtown and Glendale Park tree plantings and extensive improvements to the city Tree Nursery
- Continue and expand collaborative projects to increase public education
- Update/expand City of Elkins tree ordinance





New sign placed at Tree Nursery



ETB Darden Garden flower project



Girls State volunteers mulch trees



Adopt-a-tree recipient in 4th Ward



ETB assists with D&E Community
Service Day event with lacrosse team



ETB participated in several community events including Sprout into Spring