

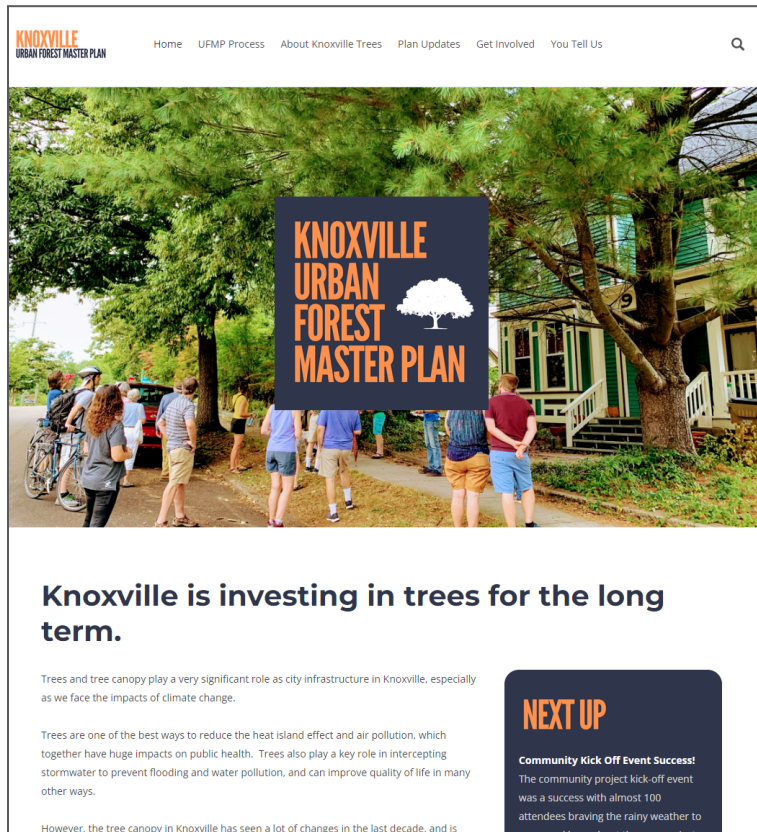


Online Survey & Open House Summary Report

- Online Comment Form live February 1 - June 7, 2023 at www.KnoxvilleTreePlan.org.
Total Submissions Received: 488
- Two Open Houses, total of 89 attendees / video views

Throughout the project, extensive information on the UFMP process, Knoxville trees and canopy cover, and more was provided on the UFMP website www.KnoxvilleTreePlan.org. The site also included an online public comment option in which anyone could provide their input and ideas. The same questions were posted at open houses, as well as in the workshops. These include:

1. Top three most important roles of trees.
2. Top three biggest challenges with trees.
3. What should our goal(s) in Knoxville be regarding trees and tree canopy?
4. What are the challenges we are likely to face when working toward those goals?
5. What are some solutions to those challenges?
6. What else would you like to tell us?



KNOXVILLE URBAN FOREST MASTER PLAN

Home UFMP Process About Knoxville Trees Plan Updates Get Involved You Tell Us

KNOXVILLE URBAN FOREST MASTER PLAN

Knoxville is investing in trees for the long term.

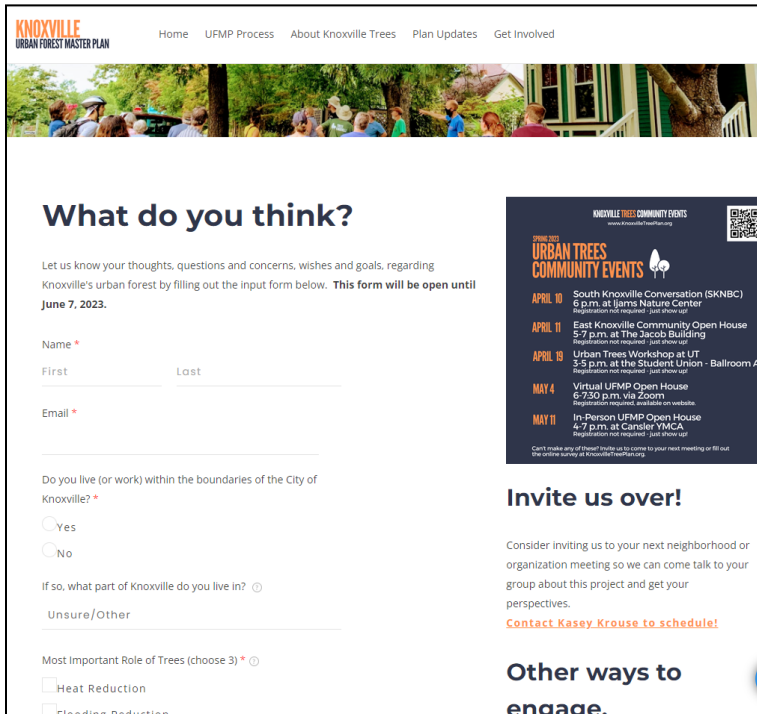
Trees and tree canopy play a very significant role as city infrastructure in Knoxville, especially as we face the impacts of climate change.

Trees are one of the best ways to reduce the heat island effect and air pollution, which together have huge impacts on public health. Trees also play a key role in intercepting stormwater to prevent flooding and water pollution, and can improve quality of life in many other ways.

However, the tree canopy in Knoxville has seen a lot of changes in the last decade, and is

NEXT UP

Community Kick Off Event Success!
The community project kick-off event was a success with almost 100 attendees braving the rainy weather to



KNOXVILLE URBAN FOREST MASTER PLAN

Home UFMP Process About Knoxville Trees Plan Updates Get Involved

What do you think?

Let us know your thoughts, questions and concerns, wishes and goals, regarding Knoxville's urban forest by filling out the input form below. **This form will be open until June 7, 2023.**

Name *

First Last

Email *

Do you live (or work) within the boundaries of the City of Knoxville? *

Yes

No

If so, what part of Knoxville do you live in?

Unsure/Other

Most Important Role of Trees (choose 3) *

Heat Reduction

Flooding Reduction

KNOXVILLE TREES COMMUNITY EVENTS

APRIL 10 South Knoxville Conversation (SKNBC) 6 p.m. at Jjams Nature Center Registration not required - just show up!

APRIL 11 East Knoxville Community Open House 5-7 p.m. at The Jacob Building Registration not required - just show up!

APRIL 19 Urban Trees Workshop at UT 3-5 p.m. at the Student Union - Ballroom A Registration not required - just show up!

MAY 4 Virtual UFMP Open House 6-7:30 p.m. Via Zoom Registration required, available on website.

MAY 11 In-Person UFMP Open House 4-7 p.m. at Chandler YMCA Registration not required - just show up!

Can't make any of these? Invite us to come to your next meeting or fill out the online survey at KnoxvilleTreePlan.org

Invite us over!

Consider inviting us to your next neighborhood or organization meeting so we can come talk to your group about this project and get your perspectives.

Contact Kasey Krouse to schedule!

Other ways to engage.

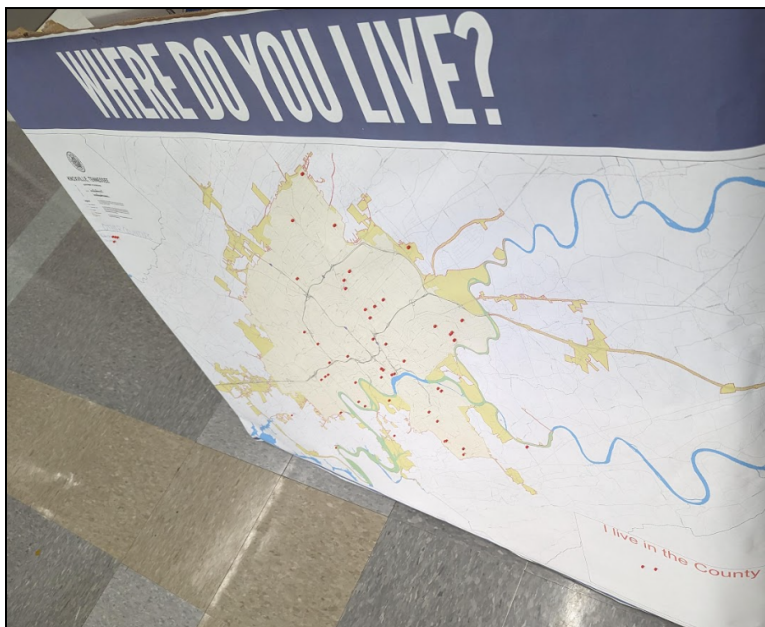
Figures 1 & 2. Project website home page (top) and online survey page (bottom) on KnoxvilleTreePlan.org

Geographic Reach of Input Collection

It is important in any community project to monitor the input coming in to stay aware of whether or not the full community is engaged. To this end, the project team included a question on where survey respondents live (or work), and all open house attendees were asked to put a pin in a map in the general area where they lived (or work).

Responses	% of Responses	Knoxville Neighborhood
58	12%	South Knoxville / Old Sevier
36	7%	Holston Hills
33	7%	Island Home / South Haven
25	5%	Fourth & Gill / Old North Knoxville
24	5%	North Hills
21	4%	West Knoxville
20	4%	North Knoxville
19	4%	Fountain City East
19	4%	Sequoyah Hills
17	3%	Bearden
14	3%	Bearden Village / Westwood / Forest Heights
14	3%	Downtown / Market Square
11	2%	Parkridge
11	2%	University of Tennessee
10	2%	Chilhowee Hills
9	2%	West Hills
7	1%	Lincoln Park / Oakwood
6	1%	Alcoa Highway
6	1%	Fort Sanders
6	1%	Vestal / South Waterfront
5	1%	Woodlawn
4	1%	Colonial Village
4	1%	Delrose Road
4	1%	Fountain City West
4	1%	Whittle Springs / Alice Bell

Responses	% of Responses	Knoxville Neighborhood
3	1%	Beaumont / Western Heights / Mechanicsville
3	1%	Charter Doyle
3	1%	Deane Hill / Bearden Hill
3	1%	Timbercrest / Middlebrook Heights
2	0%	Amherst
2	0%	Belle Morris
2	0%	Burlington / Park City
2	0%	Cumberland Estates
2	0%	Morningside
2	0%	Norwood North
1	0%	Callahan Drive
1	0%	Chilhowee / Zoo
1	0%	Civic Coliseum
1	0%	Five Point / Park City
1	0%	Inskip
1	0%	Knoxville Center Mall
1	0%	Marble City
1	0%	North Middlebrook
1	0%	Norwood South
1	0%	Norwood West
1	0%	West View
66	14%	Unsure/Other
488	100%	



Figures 3 & 4. Summary of responses from survey question (above) on where the respondent lived or worked within Knoxville (in the form of a drop down menu). A photo of the final map (left) from the In-person Open House where attendees pinned a dot on a board to indicate where they lived.

Findings & Recurring Themes

Multiple choice survey questions from the open house and online survey are found below. For ease of consumption, the remaining pages provide a summary of themes heard across all six avenues.

MULTIPLE CHOICE QUESTIONS:

The survey started with two multiple choice questions on the most important role of trees, and the biggest challenges to tree canopy in Knoxville. The same question was asked at the open house as well, so the results below combine the two sources of input.

From survey and open house (combined):

Most Important Role of Trees		Biggest Challenges in Knoxville Related to Trees	
336	Heat Reduction	267	Too Much Concrete (heat island)
286	Wildlife	195	Loss of Wildlife Habitat
258	Pollution Reduction (air & water)	185	Insufficient Protections
201	Beauty	183	Invasives
167	Human Health	129	Inadequate Resources (care, planting)
145	Buffers (noise, views)	110	Inequity (trees not accessible to all)
98	Flooding Reduction	94	Poor Care
84	Energy Savings	82	Lack of Goals
47	Soils	75	Lack of Collaboration
29	Recreation	33	Other
50	Economics		
28	Safety		
10	Other		

Figure 5. Results of questions on biggest values and challenges of trees in Knoxville. Responses combined input from both the online survey and the open house.

Most Important Role: According to survey respondents, the most important role of trees in Knoxville centers around heat reduction, pollution reduction, better human health, as well as wildlife habitat.

Biggest Challenges: Survey respondents reported that Knoxville challenges center on the amount of concrete surfaces within the city (and thus high heat levels), loss of habitat, dense invasive plants that choke out trees, and lack of tree protection measures in place.



OPEN-ENDED QUESTIONS on GOALS, CHALLENGES, IDEAS

The remaining four questions were set in an open-ended format. While making summarizing more challenging, this type of format ensures that we receive a wide range of input, and are able to receive information on topics or aspects of this work that we haven't been predicting.

- *What should our goals in Knoxville be regarding trees and tree canopy? (401 unique responses)*
- *What are the challenges we are likely to face when working toward these goals? (363)*
- *"What are some solutions to those challenges? (354)*
- *What else would you like to tell us? (251)*

The most commonly heard theme from survey respondents was related to **concerns for tree loss related to development**. This was followed by the **need for education** of the public, to really connect trees to the services they actually provide Knoxville. The third most prevalent theme was the need for a **higher quality of tree canopy**, largely calling for natives, diversity, resilient species, wildlife friendly choices. Respondents then called for **more trees** overall, more **preservation and protection** of existing trees, and the need for the **full community to engage**.

Figure 6. Themed results of all open-ended comments - from both open house and online survey.

Responses by Theme Across All Questions (488 respondents answering four open-ended questions online, 30+ responding via open house boards)	
Education & Engagement	381
Development / Zoning & Code	345
Canopy Quality	228
More Trees	222
Important Role of Trees	217
Protect & Preserve (general)	213
More Resources Needed	188
Better Management (overall)	141
Thank You for Doing This	116
Trees to Shade Roads/Walkways/Pkg Lots/Concrete	108
Partnerships & Collaboration Needed	91
Equitable and Accessible for All	86
Incentives for Planting or Preservation (overall)	52
City Management Improvements	51
Heat Reduction Needed	50
Call for Food Forests	42
Beauty of Trees	40
Need for Financial Assistance for Tree Care	32
Trees as Nuisance or Fear Factor	29
Utilities	27
Opportunity for Work Development	13
Limited or Low Quality Planting Space	11
Interested in Helping	10



Most Common Themes in Survey Responses

The following are the most prevalent themes heard by those who attended the open house or filled out the online survey:

- 1. Education & engagement is key.** The most heard theme in responses centered on the need to create an awareness and knowledge of the importance of trees. Many survey respondents cited the belief that the broader public does not connect trees with the important roles they actually play within Knoxville. A better understanding of the role of trees in Knoxville is needed.
 - “Many people don’t look at trees as one of our greatest assets. Somehow we must change that mentality.”
 - “The general population does not see or appreciate the importance of trees. Education should be a big part of this effort.”
 - “To continue to educate the public on the impact of heat islands and reduction of canopy on environment and human health. Unmitigated growth and urban sprawl will have generational impacts, and removal of canopy and woodlands replaced with structures and lawns is detrimental and irreversible.”
 - “Educate homeowners, developers, and realtors about the monetary value of trees. This targeted campaign would preserve many of the irreplaceable and extremely valuable trees that currently grow in our area. Developers specifically need more education on preserving trees around riparian areas that run through or next to their properties. The education program should include information about how homeowners should seek a second opinion from an ISA certified arborist if a neighbor or tree care company tells them that a tree is diseased / dying / about to fall.”
 - “I think community education is lacking- a lot of people don’t quite understand the importance of trees in an urban area. Often seen as an obstacle or nuisance- if more education were available I think it would be easier to gain support for tree planting/maintenance/preservation.”
 - “Consumer education on the necessity of trees”
 - “General awareness - many folks don't realize there are people thinking intentionally and strategically about trees- not even aware this conversation exists, even if they'd likely support it”
 - “Funding and educating our lawmakers, citizens, including students and seniors to the benefits of Native plantings to increase wildlife habitat.”
 - “Communicating with the public. If parking is removed to make room for a street tree, someone will get upset. There needs to be a communications plan in place to explain how streets with more tree canopy actually lead to more sales than street-side parking does. Likewise, sometimes people get upset when older trees are removed, not realizing they might be diseased. If the city wants to have a successful tree program, it will help for the public to feel part of that effort.”



- “General public may not understand the benefits of having more/native trees. Legislators won’t prioritize planting more trees or will select the cheapest vendor instead of one that will do quality work that won’t have to be repeated. “
- “I think also outreach to educate the residents is a challenge and getting proper information to citizens is a challenge when our attention span is minimal already.”
- “Some folks don’t like or value trees.”

2. Concern for tree loss from development, need for more tree protection. The second most common theme throughout the responses related to loss of trees in development. Many expressed concerns for this loss, noting that replanting doesn’t replace existing mature tree loss. Most have asked for improvements in tree protections and replanting practices.

- “More protection, especially in development.”
- “Add tree coverage to development priorities. “
- “Find ways for development to happen and still keep the trees. Build around if possible!”
- “Be strategic when planting and minimize clear cutting for new construction. You can’t replace the old growth trees. “
- “Require developers to preserve trees already there whenever possible, to add new trees, and to reduce displacement of wildlife. Also, require a tree:concrete ratio for surface parking lots.”
- “We have lost many mature trees due to the South Banks Development that ripped out all tree canopy and now has impervious land. The river bank had trees and bat roosting locations, all lost due to development of Suttree Park. Now it is a documented heat sink by UT. We want our trees back not saplings but at least 6’ caliper trees. Many trees that were planted have died or are in bad shape at the park.”
- “Protections for large trees being cut down. Also mandates for tree planting in new residential and commercial developments”
- “Save what we can, require developments to save some percentage of existing trees, say 25%.”
- “Involve the property developers in the education and goals surrounding the tree canopy.”
- “Requirements on new construction and restrictions on what can be removed in the area of new construction. “
- “Codify tree protection requirements for developments “
- “So many trees are what has made Knoxville a unique and beautiful city. We should stay ahead of the game and not follow suit of other cities with overdevelopment. Knoxville will lose in the end and will end up like every other city this size. Undesirable. There’s a reason everyone is flocking here. By changing our atmosphere we will be changing our city for the worse. “



- ““As Knoxville experiences predicted rapid growth, increasing our trees will become ever more important and more difficult. We have to get ahead of the curve on this, for the sake of health in the city—and that includes mental health and wellbeing. Trees enhance human life.”
- “Put more into revamping and revitalizing already developed areas instead of plowing down treed green areas. “
- “Hold developers accountable for sustainable construction methods to retain mature trees.”
- “Better urban forest development codes and enforcement, and raising awareness of the value of trees among the public. People don’t fight for trees because they are resigned to the fact that developers always get their way due to their entrenchment in Knoxville power structures.”

3. Higher quality tree canopy was called for, which includes the control/reduction of invasives present today, ensuring trees are maintained and in the best condition possible to ensure long life and thus the highest level of benefits to the community. Additionally, many called for the need for canopy restoration utilizing native species, and increasing of diversity to better weather future stressors.

- “Removing all invasives and non native trees like Bradford pears and replace with high volume canopy trees like oaks, hickories, tulip poplars, etc.”
- “City wide effort to combat the kudzu problem. “
- “Place emphasis on choosing native species. Seek to remove invasive vines from existing trees.”
- “We should create as much biodiversity as possible and plant trees in as much green space as possible. We should plant food forests in places where it makes sense.”
- “Outreach education removing invasives that compromise our trees. Offer a volunteer squad to remove and kill invasive maybe from property if a homeowner is interested. Or clear our parks of invasive species.”
- “Maintain and enhance the tree canopy at a range of heights and with a variety of species in order to increase the overall diversity of our urban landscape.”
- “Show the country that tree restoration of native species to the area can be done by a city. Show them what East TN is supposed to look like. Show them a city can improve its ecosystem support. Show them a city without invasives.”
- “Preserve the old growth / well established trees as much as possible - especially natives and continue to plant as many native trees as possible in a way that supports Knoxville economics. Let Knoxville be known for having a large healthy native tree canopy that helps keep the city cool and attractive so visitors will want to come. After all, Knoxville is known for its urban wilderness - let that expand throughout the city. This will also give us a closer regional tie/ continuity to the GSNP.”
- “To provide as many sustainable trees as possible, especially in urban areas.”
- “Diverse native tree species succession planning and planting. “



- “More movement towards planting more native trees. “
- “Planting more native trees with wildlife in mind”
- “Eradication of invasives in conjunction with planting trees on those sites”
- “Plant native, wildlife friendly, and long lived trees.”

4. Recognize **the important role of trees, as critical city infrastructure (not decoration), vital to climate change resilience, human health, etc. Many responses contained respondents' thoughts on the roles trees play, and the need to recognize trees as vital to Knoxville's livability.**

- “Air pollution is one of Knoxville's biggest challenges because of the concentration of pollution posed by the I-40/I-75 corridors and the way the valley traps pollutants. Increasing the canopy should be a goal to help combat this, aid in heat reduction, and increase the beauty of the community.”
- “Tree canopy is vital for buffer zones to protect residents and neighborhoods from all the rampant indiscriminate development we see, smell, and hear these days!!! We need places to breathe, please! TREES PROVIDE OXYGEN.”
- “Trees to protect us from heat/climate change”
- “Carbon sequestration”
- “I-40 noise and pollution reduction.”
- “Trees are key to fighting climate change, carbon sequestration, and protecting biodiversity.”
- When planning for new tree canopy, assess planting locations that could both benefit environmental conditions and human health benefits (ie do not only focus on environmental)
- “Prioritize establishing trees and a tree canopy in a way that helps break up the never-ending concrete but also in a way that is functional and serves as a haven for both humans and other biodiversity. Trees can serve multiple purposes, and rather than have the occasional tree surrounded by concrete it would be nice to see a fluid collection of trees and other plantings that can serve purposes other than just aesthetics. All of the roles mentioned above are important to be considered in future designs and planning.”

5. The **need for more trees across the board came up many times throughout responses. Within this theme, there were many ideas on where to focus, including in communities in most need, where people bike and walk, on school properties, within the urban core, subdivisions, and more.**

- “Planting trees strategically to ensure their long term survival and planting MANY trees”
- “More trees please!!”
- “More trees downtown!”

- “Knoxville's tree canopy needs to be regenerated where it is currently depleted-- meaning areas that have experienced tree loss need new trees. We also need to make sure that areas with predominantly older trees have some young trees planted to take their place, almost like a succession plan. There need to be trees in multiple age/life stages near each other. We can't just have an old forest and new forest.”
- “All neighborhoods should have as many trees as possible to reduce heat and pollution, and to provide more beauty”
- “Plant more, give away more, encourage kno1villians to plant more and grow more noninvasive varieties.”
- “I would love to see green spaces with lots of trees in all parts of the city, with an emphasis on areas that currently are deficient. “
- “Increase tree canopy! We're gonna need it in this heat!”

In this same vein, there were options at the open house to select areas where respondents would like to see more trees (below). Additionally, we asked for information on the challenges in adding more trees - both overall in Knoxville, and for them personally.

Votes	Where would you like to see more trees overall?
37	In parking lots
33.5	Shading where people walk (sidewalks and walking paths)
24	Along streets
23	In Parks
21	At/by schools
20	In front or backyards
20	Shading bus stops

Figure 7. Multiple choice question on open house board on where in general attendees would like to see more trees.



Figure 8. Open house map of areas where attendees would like to see more trees in Knoxville.



Votes	Challenges of Trees - Overall
7	Conflict with sidewalks and utilities.
4	Trees cost a lot to maintain
4	There isn't space for any or new trees
3	I don't know how or what to plant in my yard
3	I'm concerned about safety (trees or branches falling)
3	Allergies
3	Trees block out he sun (for gardening, solar panels, etc)
2	Trees are messy and create a lot of debris

Votes	Challenges of Trees - Personally
5	I don't have room to plant one or more trees
3	I rent my home (or other restrictions keep me from planting)
2	I don't know how to care for a tree
2	I don't have the finances to have trees
1	Having trees is too much work
1	Trees are too heavy to transport

Figure 9. Multiple choice questions on an open house board asking attendees what they thought the biggest challenges were to adding more trees in Knoxville - both overall, and for them personally.

6. The need to **protect and preserve trees** was also common in responses, including slowing losses from development to better account for and preserve trees across all of Knoxville..

- "Ban on cutting mature undiseased trees "
- "Protecting the trees that are currently standing as well as ones to be planted. Preventing deforestation and non-water permeable concrete "
- "The goal should be to preserve and maintain quality tree populations that are healthy and well adapted to the area."
- "Protect what we have. Especially older growth. "
- "Preserve the mature native tree canopy we have left.
- "I see the preservation of existing canopy by addressing climbing invasives on public and private property as a paramount concern for tree health and human safety."
- "It is also important to protect all existing trees along sidewalks."
- "*ensuring old growth trees are kept healthy and free of vines"
- "I believe that preservation is often overlooked- but is essential. Obviously proper tree care and maintenance can sustain the current trees and tree canopy. While I definitely think more trees could be planted, especially in currently barren/concrete only places- it would be great to see more frequent maintenance!"
- "To keep old growth protected from urban expansion."



7. Many responses acknowledged that **more resources are needed** in order to improve the care and management of trees in Knoxville. Tree care on private property can be costly and organizations must be staffed and funded to provide services.

- "Funding and maintenance of trees over the long term."
- "Financial resources to plant new and replace dying trees."
- "Lack of collaboration with resources outside of the city's current infrastructure."
- "Maintenance, funding, commercial interests given priority over people."
- "Consumer education on the necessity of trees and funding for programs."
- "Additionally, acquiring the necessary funding and volunteer hours required to complete these goals could prove to be difficult."
- "Funding and time, always."
- "Lack of resources, economic obstacles and an antiquated way of life that is pervasive in this area with no desire for change. Lack of interest will be difficult to overcome."

8. **Better management overall** was cited many times as a challenge community-wide. With the majority of Knoxville's urban forest on private property, homeowners and businesses often don't have the knowledge or understanding of how to properly care for trees over time.

- "Care for the mature trees we have (through homeowner outreach and more trained, well-paid city workers)"
- "Most shopping mall/shopping strip management groups hire landscapers with no understanding or interest in proper maintenance of their parking lot trees -- especially mulch "volcanoes!" Educate or "incentivize" those units re: proper maintenance."
- "Do city homeowners know where to go to find out about what they can do with their trees?"
- "Add more staff to city urban forest department and Trees Knoxville"
- "Aging communities and neighborhoods needing tree care, and being solicited by "tree cutters."
- "Broad education about the importance of trees and tree care is also important. I think a lot of people cut down healthy trees due to fear of falling and / or an unwillingness to deal with leaves."
- "Working with other city agencies to understand that trees must be managed beyond planting."



- “There's a lot of concrete in our city, and that is a challenging environment to plant trees. Other challenges may involve dealing with landscapers or maintenance folks who may not be informed on the proper way to mulch the trees or who spray herbicide in the wrong places or in the wrong way.”
- “Have experts to monitor and routinely check up on newly planted trees.”
- “Strategic planning and maintenance. Would be better to plant fewer trees over a longer period if that meant the planted trees would be better cared for and established.”
- “I have lived in Knoxville for only 5 years, so my experience is somewhat limited. I have seen many new tree plantings as well as the results of existing work. I think the City is actually doing an admirable job with what I perceive are limited resources. In my part of the City, I am beginning to see the die out of older trees, so I could see the encouragement of the City to plant shade trees and not just dogwoods to reinforce the existing canopy. I am looking forward to continued work along the Magnolia/Ashville Highway corridor.”

9. Thank you. Many responses expressed appreciation for this effort.

- “Would like to say thank you for the trees that are planted and cared for, it makes a difference!!”
- “Trees make sense health-wise and they make space so much more beautiful and enjoyable, especially considering the summer seems to be getting hotter -thank you for your efforts!”
- “Thank you for what you all are doing. I had no idea you were here!”
- “Thank you for asking our opinion. Please consider planting trees between Dogwood elementary and the teachers center. It's an open field and very loud between plane traffic and school traffic. It's also very hot area!! Thank you for listening.”
- “Please keep working at the goals it sounds like your doing”
- “Keep up the recent good work.”
- “I am looking forward to a greater urban forest that all members of the Knoxville community can enjoy!”
- “I don't have much input or knowledge, just want to say I appreciate what you are doing. Knoxville's lush trees are a treasure and it means we have to continue to replace and protect. Thank you for your efforts and expertise!”
- “Having the citizens of Knox county and city stand together and stress the importance of green spaces. Sounds like this is a great start and thank you for reaching out.”
- “Grateful for what Kasey , Dale and others are doing to educate our city re: the importance of trees!!”



- “Kudos for Knoxville having an arborist, just keep up the education and work with civic clubs and neighborhood groups and Boys and Girls Clubs, Boy Scout Troops etc.”
- “Keep doing what you're doing, but do more and better. Thanks for all your efforts and understanding the need and importance of a healthy urban ecosystem.”
- “Very excited that you are working on this plan. This helps with property values, equity, health, the environment, and so much more. It's not a silver bullet for anything, but it's a step in the right direction.”

10. Heat reduction from more shade and less pavement, especially for pedestrians.

Many cited the fact that cooler, shaded areas are key for better health and staying a livable community. Trees are needed around the city, but especially along sidewalks, streets, and parking lots. Trees are essential for walkability.

- “Improve walkability by combining shade trees with sidewalks. Numerous examples of new roads with sidewalks with no trees (Oak Ridge Hwy area and areas north), or trees with no sidewalk (most of Knoxville).”
- “Trees reduce heat and as a result, through heat reduction and beauty, make it more pleasant to walk. Knoxville is very hot in the summer - the more pleasant it is to walk and bike, the more likely people are to do them over driving.”
- “Improve walkability by combining shade trees with sidewalks. “
- “A higher ratio of green space to concrete.”
- “Reduce heat to make areas more pleasant when not in a car.”
- “Walkable neighborhoods ie. shade”
- “Have more tree and bush-lined greenways all over town, threading through all neighborhoods, allowing people to walk anywhere they want to go without having to walk near cars for much distance”
- “Shade for streets and urban areas”

11. Success will require partnership and collaboration. The amount of trees and tree canopy on private land will require multiple collaborations and partnership to see real success in coming years. Additionally, multiple calls to do this work at the neighborhood level because every neighborhood is different, so needs will be different.

- “Collaboration and goals execution on public vs private land.”
- “Several challenges will be faced, the first being, the challenge of engaging and activating residents to take action. The second challenge would be engaging partnering agencies/organizations and organizing opportunities for collaboration.”



- “Promoting a resilient landscape is a challenge especially in an urban setting. Collaboration more with federal, state and local agencies and organizations can be very helpful in accomplishing diverse goals effectively.”
- “Involve local community groups in planting and care of trees.”
- “Collaborate with multiple groups to target areas of most need then launch a plan to fill these areas. “
- “A unified vision between the City of Knoxville and Knox County.”
- “Work with neighborhoods to get more trees on the streets and in homeowners’ yards.”
- “There could be a program providing trees at a discount in low-income areas or possibly coordination with the school system to distribute seedlings to children (we had that happen when I was a child--my seedling is now 75 ft. tall and I know many of my friends also planted their seedlings throughout the community).”
- “I’m excited for the collaboration between UT and this effort. Involving students is great.”
- “Work with more community groups that have broad reach.”
- “Engaging partners such as UT Extension who are already actively involved with the local community is a good option for activating partnerships with higher levels of return.”
- “Involve garden clubs, Master Gardeners, UT and high school students, civic organizations.”
- “Figure out who the best community partners would be by having conversations with neighbors & local organizations. Create a plan to figure out who will prune and keep up with trees each year.”
- “Education in neighborhoods by their own neighbors. Have an expert arborist offer to attend HOA meetings. Many older neighborhoods do not have hardcore HOAs but are more of an civic club vs enforcer of rules. Encourage neighborhoods to form groups to help maintain trees for neighbors who can’t and remove English ivy and euonymus.”

12. Focus on equity and environmental justice. Disparity in tree canopy means that not all residents have access to the benefits that trees provide. There has been a historic lack of investment in many lower-income or renter-dominated neighborhoods, and many are not physically or financially able to care for existing trees. Priority work is needed to address environmental justice in Knoxville.

- “Increasing equitable access to trees”
- “Increasing the tree canopy with native species should be the goal, especially in areas that have been overlooked in the past.”



- “More equitable distribution of canopy coverage. Work with groups like The Bottom, KAUL, Centro Hispano to educate, distribute trees and increase buy-in. Advocate for/work with the city to break up concrete/create permeable surfaces in the spaces with less canopy coverage.”
- “Increase canopy especially in areas with the least canopy which is usually a low socio-economic area.”
- “Demonstrate the equity of tree planting and spending throughout all neighborhoods.”
- “Spread the focus/priorities into multiple areas so neighborhoods aren't left behind.”
- “Reverse environmental injustices, decrease urban heat island, prioritize low economic opportunity areas.”
- “I would love to see more native species! Especially in the lower income areas like Western Heights, I feel like there should be more accessibility to parks or nature areas.”
- “I would like to see a more equitable distribution of vegetation. Areas in East Knoxville receive much less attention than those closer to affluent areas. “
- Work with low-to-moderate income neighborhoods to increase the number of trees in city right of ways and on private property. Provide financial resources to plant and maintain trees.”
- “Education and trust building. If the city officials and/or contractors don't look like the communities being served, that will cause problems.”
- “Accessibility to clean, safe green space with shade trees for every single person, including homeless people, in the poorer parts of Knoxville.”
- “Talk to folks in neighborhoods and organize planting if interested.”
- “Talk to leaders of neighborhoods.”
- “Systemic racism still in existence.”

13. Incentives for Planting or Preservation (overall). Respondents repeatedly brought up incentives as a way to make tree preservation, planting, and care a benefit rather than a burden. Survey responses contained a variety of ideas for incentivizing the support of the urban forest.

- “Quantify the impact of canopy and pocket woodlands in urban and suburban yards (savings in leaf pick-up, mowing and watering costs, heating and cooling, increases in property value, stormwater infrastructure, cost of providing leaf pick-up) and provide incentives for homeowners that make economic sense for the city.”
- “Find an equitable way to compensate landowners for preserving and planting trees perhaps through property tax rebates or supplying saplings at low or no cost.”
- “Incentivize the use of structured tree cells that ensure that trees planted in primarily urban spaces don't just survive but thrive and meet the goals of the master plan.”



- “I would like to see more incentives for planting more trees and native species (or non-invasives), composting, having natural yards (not overgrown), and using less chemicals. I don't think it should be a special use to have a natural garden or certified wildlife habitat. I would like to see that be more of the norm.”
- “Ideally incentives or regulations promoting/requiring more pervious surfaces for parking lots and sidewalks, this should benefit trees if run off is minimized.”
- “Change zoning and development codes to incentivize tree protection. Allow for more density (build upwards) if trees are protected and maintained.”
- “Strong partnerships with property owners, building trust. Incentivizing participation in the tree plan. Educate neighbors about best practices. Free trees!”
- “Incentivize or pay owners (or do it for them for free) to remove invasives, especially bradford pear, remove all non-natives over time.”

14. Heat Reduction Needed. Trees play a major role in reducing the urban heat island effect when planted strategically to shade pavement. This is one of the most effective ways a city can mitigate some of the effects of climate change. Knoxville residents commented that the shade provided by trees make the city more liveable.

- “South Knoxville on Sevier Ave is booming but the heat in the summer is intense due to lack of trees and the overabundance of concrete and asphalt. From reading the detailed plans of the upcoming Sevier Ave streetscape, I'm happy trees and plants are being added overall but I'm concerned about the lack of trees planned to be added to the middle part of Sevier Ave around South Coast Pizza, Southside Garage, and Everything Mushrooms.”
- “I'm very excited about rebuilding the tree canopy in neighborhoods that are inequitably affected by heat and poverty.”
- “I thoroughly enjoy that Knoxville has an urban forestry program and I personally think the more trees the better. I love walking around my neighborhood under the canopy of trees. To me they have a certain calming effect, not to mention the brief respite from urban heat that they create.”
- “We need a cool area to get respite in this city. Trees provide so much shade in the summer, we need to keep as much as we can, especially on the square.”
- “These housing projects that destroy them {trees} and then don't replace any. It's ugly and makes it hotter.”
- “Measure urban heat dome, monitor it and actively mitigate it.”
- “Protection from the heat is such a large concern, yet no one seems to realize how much help trees are for that.”



- “Knoxville needs more trees in the commercial areas where there are urban heat islands. Some of the worse areas are in West Hills like West Town Mall and the other establishments down Kingston Pike.”
- “All neighborhoods should have as many trees as possible to reduce heat and pollution, and to provide more beauty.”
- “Trees reduce heat and as a result, through heat reduction and beauty, make it more pleasant to walk. Knoxville is very hot in the summer - the more pleasant it is to walk and bike, the more likely people are to do them over driving.”

15. City Management Improvements. Although it is known that much of the city’s tree canopy is on private property, the city still plays a role in managing trees on private property through land development regulations and other types of policies and regulations.

- “Larger planting areas for street trees (increase soil volume)”
- “Hire the urban planning and forestry staff. Allow ongoing public input.”
- “Education and trust building. If the city officials and/or contractors don't look like the communities being served, that will cause problems.”
- “Working with the city to change their view of how trees can be used within a landscape.”
- “Will we have enough of a voice for the city members, who are approving developments, to actually understand, care, agree, and deny rezoning of current agricultural land with hundred year old trees? What resources and rules are needed to maintain and protect the areas and wildlife in those areas? What kind of budget and manpower is needed?”
- “Funding and maintenance of trees over the long term.”
- “City too short sighted to fully fund positions paid commensurate with education and experience with -urban planning for safety, emergencies, and quality of life -building and maintaining ALL citizens' access, including homeless people, prioritizing poor and Black parts of town, to safe urban greenspace and shady trees, -selecting and properly tending trees and plants native to our area”
- “Work with the city to make changes happen, change policies to protect green spaces. and build capacity to have better transportation and access to green spaces for all. Also create trust and ownership with individuals who are not considered when it comes to "redevelopment.”
- “Elected officials need to change their approach to development.”



16. Need for Financial Assistance for Tree Care. Tree care can be expensive, especially for those on fixed incomes. Many people may want to do the right thing to care for their trees, but simply don't have the resources to do so.

- "Tree care is very expensive, especially for older people who live in older homes and often have beautiful trees."
- "Improve the availability of proper trimming and care of existing trees and make replacement trees affordable."
- "Provide resources and incentives to empower private tree owners to care and maintain trees in under-resourced neighborhoods."
- "Can the city find a way to fund some help for people that need to trim dying branches but can't afford it? Or they might need to sweep leaf debris but don't have the means. Community programs to help, either by volunteers or city crews. I feel that way about home repair in low-income areas, also."
- "Provide economic assistance and/or tax incentives for proper care of established canopy trees to keep neighborhood-scale canopies healthy. Possibly a city partnership with approved private tree care services to provide quality, affordable preventative care and consultation for urban trees on private property (maybe native trees over a certain diameter, or age could be eligible for assistance)"

17. Beauty of Trees. Trees add beauty and create a unique sense of place in Knoxville - making it more appealing to residents and tourists alike.

- "Too much construction and expansion due to increased population. We still need to keep our city as beautiful with trees as we can. Please."
- "All neighborhoods should have as many trees as possible to reduce heat and pollution, and to provide more beauty."
- "Trees make areas pretty."
- "So many trees are what has made Knoxville a unique and beautiful city. We should stay ahead of the game and not follow suit of other cities with overdevelopment. Knoxville will lose in the end and will end up like every other city this size. Undesirable. There's a reason everyone is flocking here. By changing our atmosphere we will be changing our city for the worse."
- "Trees make sense health-wise and they make space so much more beautiful and enjoyable, especially considering the summer seems to be getting hotter -thank you for your efforts!"
- "Knoxville's beauty lies in its network of trees and parks. Use the example set by the Kingston Pike-Sequoyah Hills Neighborhood Association to encourage other neighborhoods to develop neighborhood tree plans and help fund such tree projects. Thank you for your valuable work!"



18. Call for Food Forests. There is an increasing interest in access to trees that produce either fruits or nuts, proposed as tools to solving multiple issues, including food deserts, equity and wildlife habitat challenges.

- “Increase the tree canopy with native and edible trees, increasing food and habitat for wildlife as well as providing a food resource for the communities in which they grow.”
- “I would love to see Knoxville implement more trees aimed at food production accessible for the public. I think these trees could offer all the other benefits of trees, while also providing food to our city. If they go uncollected, I’m sure Knoxville could reach out to Second Harvest or volunteers to help harvest, produce and donate it. I think the goal should be to plant more food producing trees in areas where the public can access them and also in areas where heat reduction and pollution reduction is necessary.”
- “Food security is a major issue in Knoxville, especially in underserved neighborhoods/communities that had been affected by Knoxville’s urban renewal. Planting more fruit trees is not the only solution to this problem but would be a step forward.”
- “Plant native and fruit bearing trees.”
- “I am encouraged to see this questionnaire and hope that it will lead to more help for environmental developments. I’d like to see Dogwood Trails with less focus on big lawns and more emphasis on Edible Landscaping and native bees for pollinating and so forth.”
- “Bradford pears are of the devil. Take them all down and plant fruit trees for the community to eat from.”

19. Trees as Nuisance or Fear Factor. Private landowners hesitate to plant trees or may jump at tree removal due to a variety of fears/nuisances. Most often cited were mess-related and infrastructure damage issues, as well as the need for qualified expertise.

- “Homeowners overly worried about if a tree might fall and getting conflicting opinions from contractors on whether the tree is really a safety hazard (who ultimately makes that call?). “
- “Resistance to tree planting out of fear of storm damage to property”
- “Property rights; too much concrete or asphalt; once in a great while you’ll find someone who wants no trees at all because of the litter they create for roofs.”
- “On private land, people cut trees proactively once they have one instance of damage from falling trees or branches. Or they take out trees for lawns.”
- “People don’t want leaves and fruit lying around. People want open lines of sight on roads even though that makes them less safe.”
- “Birds and seeds can make a mess.”
- “I suppose trees can be dangerous around sewer pipes and generally with concrete/asphalt. People might object to thicker tree coverage for some reason.”



20. Utilities. Comments included both suggestions to work with utility companies moving utilities underground or supporting tree planting initiatives, as well as complaints about how trees are pruned near utility lines.

- “Create a sustainable means to raise money like KUB's Green power program. Give every KUB customer the option to donate a portion of every bill towards canopy.”
- “On the commercial side, make sure any contractors know what they're pruning. I've seen a disconnect between various utilities and communication companies on cutting limbs away from lines also. The utilities have already whacked them and the communication companies come behind and brutalize them further.”
- “To plant more trees and care for those that have been planted. Utilities should be underground to avoid the hatchet job of trimming by KUB contractors.”
- “KUB trim jobs leave ugliness by trimming only around wires.”
- “Partner with KUB to get rid of overhead lines for an incremental burying of power.”
- “Work with KUB regarding trimming and removals.”
- “All utilities, communication poles and lighting need to go on the side of the new development as the older homes already have what we need. But development is trying to push their support stuff behind our homes that have mature trees and lawns that should not be disturbed, support should be in the new development for the new development.”

21. Opportunity for Work Development. Many opportunities exist in Knoxville for better management of tree resources, both on private and public lands. This is an opportunity to get the local workforce utilized while working toward tree goals. Workforce training and youth development programs should be considered as a key piece to future efforts.

- “I would like to see a Knoxville Urban Forestry work-based training program for Knoxville's at- risk youth. As a late teen, my father was part of a program that took city kids for camping and hunting trips--a Fresh Air type of program. Why not bring the forest to the kids and make them an authentic part of the creation of an urban forest. The benefits for a cadre of young urban foresters abound: Job skills, civic involvement, earnings, working with professional foresters and landscapers, and pride and increased self-confidence. Local partnerships and grants could make this happen.”
- “Work with community partners to hire and train diverse crews of residents to work in and need their neighborhoods.”
- Low-income communities may not only have an issue with having trees but as much an issue with maintaining trees. City support for invasive removal, creating job opportunities and education, would be incredible”
- “A partnership with Pellissippi State Magnolia Avenue Campus to develop an urban forestry curriculum (certified arborist training) would be helpful to create economic opportunities in East Knoxville as well as address the need for certified arborists.”



22. Interested in Helping. Many groups and individuals expressed interest in continuing to be involved in either urban forest master plan execution or other tree and preservation-related projects. This information has been delivered to Trees Knoxville.

23. Limited or Low Quality Planting Space. There is limited space available for trees to really thrive, especially when they have to compete with other development and necessary city infrastructure. We will have to be intentional about making space for this equally important piece of city infrastructure.

- “Finding the room for trees in some of the more populated areas will be difficult.”
- “Specific code requirements for landscape area footprints for any proposed building or structure in order to provide sufficient space for species appropriate tree and shrub material. For example, a code item might state that 'any building must have at least ten feet of space allocated for landscape between building facade and any hardscape (sidewalk, pathway, etc.) surfacing.' “
- “Create better growing sites. The current sites along Cumberland Ave., Central Ave., and Magnolia Ave. are way too shallow. They are not conducive to long term tree growth. ”
- “Lack of space related to increased concrete {is a challenge}.”
- “Creating better growing sites. The current sites along Cumberland Ave., Central Ave., and Magnolia Ave. are way too shallow. They are not conducive to long term tree growth.”
- “Finding the land to plant these trees is definitely going to be difficult. It is hard to connect areas of green space, especially in densely populated areas.”

Themes for Goals/Priorities Specifically

It is beneficial to separate out the responses to just the first open-ended question “What should our goal(s) in Knoxville be regarding trees and tree canopy?” for UFMP goal setting.

The most common responses for Knoxville goals center on more trees overall, better canopy quality (natives, removal of invasives, improved diversity, etc.), more efforts to protect and preserve trees overall, but especially in development.

What should our goals in Knoxville be regarding trees and tree canopy? (401 unique responses)	
Responses by theme:	
More Trees	143
Canopy Quality	130
Protect & Preserve (general)	108
Development / Zoning & Code	98
Important Role of Trees	76
Education & Engagement	72
Better Management (overall)	63
Equitable and Accessible for All	49
Trees to Shade Roads/Walkways/Pkg	33
Heat Reduction Needed	30
Beauty of Trees	20
Call for Food Forests	19
Incentives for Planting or Preservation (overall)	13
More Resources Needed	11
Partnerships & Collaboration Needed	10
Need for Financial Assistance for Tree Care	10
Utilities	9
Thank You for Doing This	8
Trees as Nuisance or Fear Factor	5
City Management Improvements	3
Opportunity for Work Development	3
Interested in Helping	2
Limited or Low Quality Planting Space	2

Figure 10. Themed results of open-ended comments for the Goals and Priorities question only.