EXHIBIT A TO ORDINANCE NO. 017, 2025

Rooted In Community

Urban Forest Strategic Plan

2024

> Change is never easy, and it often creates discord, but when people come together for the good of humanity and the Earth, we can accomplish great things.
>
> —David Suzuki

Contents

ACKNOWLEDGMENTS 4

LAND ACKNOWLEDGMENT 6

EXECUTIVE SUMMARY 8

1. FORT COLLINS' URBAN FOREST 10

2. TREES ENHANCE NEIGHBORHOOD & COMMUNITY VITALITY 34

3. A HIGH-PERFORMING FORESTRY DIVISION 46

4. FUTURE GROWTH STRATEGIES 58

5. MOVING FORWARD 76

6. SELECTED REFERENCES & GLOSSARY 86

An accompanying Appendix provides detailed information about project methodology and findings.

Rooted In Community
Urban Forest Strategic Plan

EXHIBIT A TO ORDINANCE NO. 017, 2025

Acknowledgments

The Fort Collins Urban Forest Strategic Plan was created with funding from the City of Fort Collins.

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Special thanks to:

The Fort Collins community members and visitors who shaped this plan.

*Prepared by **Davey Resource Group, Inc.** for the City of Fort Collins.*

Land Acknowledgment

The City of Fort Collins acknowledges and honors the lands situated within the city as the original homelands of the Hinono'eiteen (Arapaho), Tsétsėhéstahese (Cheyenne), Numununu (Comanche), Kiowa (Caiugu), Čariks i Čariks (Pawnee), Sosonih (Shoshone), Oc'eti S'akowin (Lakota) and Núuchiu (Ute) Peoples. This area is an important site of trade, gathering, and healing for these Native Nations. These lands are home to a diverse urban Native community representing multiple Native Nations and Indigenous Peoples. Despite forced removal and land dispossession, they continue to thrive as resilient members of our community. We are grateful for Native community members and honor the rich cultural heritage they bring to our collective community. We further recognize and value their social, intellectual, economic, and cultural contributions. The City of Fort Collins is committed to supporting, partnering, and working with the Native and Indigenous community.

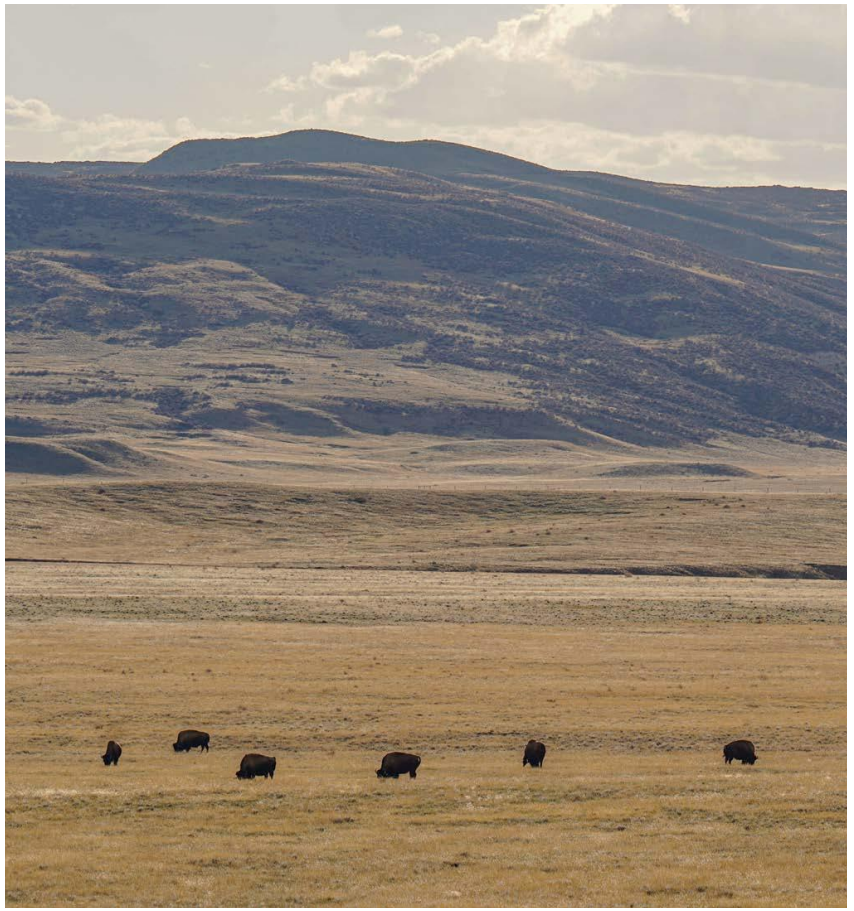


IMAGE 1. SOAPSTONE PRAIRIE NATURAL AREA NEAR FORT COLLINS.

Executive Summary

When you come into Fort Collins, Colorado, it doesn't take long to realize that you have arrived somewhere special. Whether you live here, work here, or like to visit, you have probably, at some point, noticed our tree canopy. Fort Collins' trees add to the livability of our neighborhoods and surrounding areas. Trees improve our mental and physical health, provide protection from urban heat, and are an integral component in our battle against climate change.

TREE CANOPY IS GROWING IN FORT COLLINS

The urban forest is the collection of trees that grow on public and private land across the city. **Over a 10-year period, tree canopy cover in and around Fort Collins has increased by over 930 acres.** Not all communities can say the same—many cities are losing canopy at accelerated rates. However, tree canopy cover varies widely, ranging from almost no trees in some parts of the city to over 40% tree canopy cover in other areas. While nearly all land uses in the city have gained tree canopy over the past decade (commercial land is the only land use type that has lost canopy), we have work to do to ensure that all residents are able to experience the benefits of trees.

Themes of the Urban Forest Strategic Plan

This Rooted in Community is a framework for action. It is a 20-year plan that establishes a vision for managing the urban forest into the future.

Three themes emerged during the planning process:

- Build resilience & wellbeing of people and trees.
- Sustainably grow the Forestry Division.
- Expand the community's knowledge about tree benefits and stewardship.

FUTURE GROWTH STRATEGIES

***Rooted in Community* proposes seven Growth Strategies for Fort Collins' urban forest:**

1. Strategically invest in growing tree canopy where it will promote resilience and quality of life in Fort Collins.
2. Complete the shift to proactive management of Fort Collins' public trees.
3. Strengthen city policies to protect trees.
4. Collect data to track changes to tree canopy over time and to inform forestry activities.
5. Sustainably resource the Forestry Division to keep pace with growth of the urban forest.
6. Deepen engagement with the community about tree stewardship.
7. Expand the network of Forestry Division partners.

Public Engagement for *Rooted in Community*

More than 1,180 community members gave input about this plan via:

- Partner focus groups (9).
- Public meetings (3).
- Community survey.
- Public draft preview.

TREES ARE AN INVESTMENT IN OUR COMMUNITY

Trees are one of the few investments that appreciate in value over time. Their benefits are innumerable, from improving human health and safety to improving the economic vitality of the community.

$2.2 million

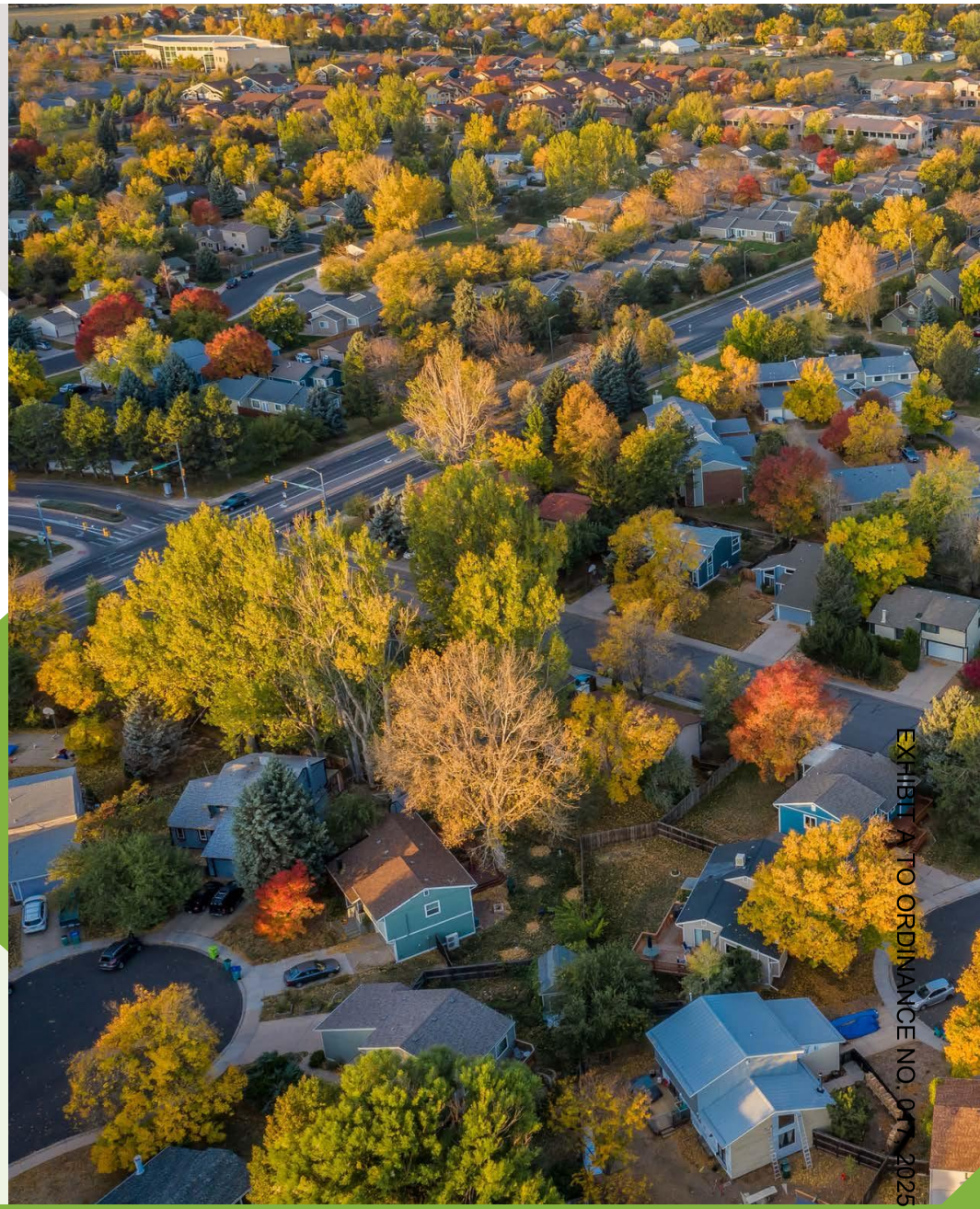
in benefits is provided annually by Fort Collins' trees through cleaner water, cleaner air, and greenhouse gas reduction.

THE VISION FOR FORT COLLINS' URBAN FOREST

The City of Fort Collins is committed to bringing trees and their benefits to people where they are needed most to support human health, reduce urban heat, and build climate resilience.

Rooted in Community outlines a set of strategies that will build upon the stewardship of Fort Collins' urban forest over the last 160 years. Investments in urban tree canopy will ensure that tree benefits will grow and become more equitable, improving the lives of the people of Fort Collins for generations to come.

1 FORT COLLINS' URBAN FOREST



Fort Collins' Urban Forest

When viewed from above, the green tree canopy of Fort Collins stands out against the surrounding steppe, shrubland, and grassland of the Front Range. These trees bear witness to the sustained stewardship that has been provided by residents over more than 160 years. Trees have grown to become one of the hallmarks of the city, enhancing the natural beauty and hospitability of the Cache la Poudre River valley.

Fort Collins' urban forest includes trees growing along streets, in public parks, cemeteries, golf courses, and natural areas, and in the yards of homes, schools, and businesses. Together, these trees are a dynamic, living system that provides invaluable environmental, economic, and societal benefits to enhance the quality of life in Fort Collins.

URBAN FOREST STRATEGIC PLAN

This Urban Forest Strategic Plan is a comprehensive plan for the management, protection, and improvement of Fort Collins' urban forest. It summarizes the state of the city's urban forest and the City of Fort Collins Forestry Division's program. Then, it provides seven Future Growth Strategies with tiered actions that the City of Fort Collins and its partners can take to ensure that its urban forest remains healthy and vibrant into the future.

99%

The proportion of residents who said that trees are an important part of Fort Collins in a public survey.

The plan establishes a 20-year vision for managing the urban forest by answering a series of questions about Fort Collins' present and future (Figure 1).

FIGURE 1. THE STRATEGIC PLANNING PROCESS.

Themes of the Urban Forest Strategic Plan

This Urban Forest Strategic Plan summarizes the state of Fort Collins' urban forest and outlines a vision for the next 20 years to:

- Build resilience & wellbeing of people and trees.
- Sustainably grow the Forestry Division.
- Expand the community's knowledge about tree benefits and stewardship.

A HISTORY OF **TREES & FORESTRY** IN FORT COLLINS

IMAGE 2. ON THE CACHE LA POUDRE RIVER, COLORADO (1875) BY THOMAS WORTHINGTON WHITTREDGE | CREDIT: AMON CARTER MUSEUM OF AMERICAN ART, FORT WORTH, TX.

10,000+ YEARS BEFORE PRESENT

These were the original homelands of the Arapaho and Cheyenne Tribes that were forcibly removed. In the Cache la Poudre River Valley, trees are mostly found along waterways.

MID-1800s

The Council Tree is known as an important cultural site for multiple tribes to gather for trade.

1870s-1880s

Gardens and promenades with trees are popularized in Fort Collins.

1890s-1920s

As part of the City Beautiful movement, city residents plant elms, oaks, and maples along streets in Old Town.

1920s

City Council makes the first allocation for "Street Forestry" ($700).

1939

The City hires its first Forester, an independent contractor with authority to perform forestry services and allowed to use City equipment.

1951

City Forestry Program proposed by W. D. Thomas, Jr., includes introducing City Forestry Code, arborist licensing, and survey of unsafe and infested trees.

1970

A tree sanitation program begins in response to Dutch Elm Disease.

1977

Fort Collins is recognized as a Tree City USA by the Arbor Day Foundation.

1980

The Forestry Division assumes maintenance of street trees.

1988

The first computer-based citywide inventory of public trees is conducted.

1990

"Tree-henge" is planted in Lee Martinez Park.

1991

Forestry's biological control program successfully eradicates spongy moth.

2002

City develops first drought response plan, prioritizing trees, in response to severe drought conditions on the Front Range.

2008

Forestry begins a wood recycling program in alignment with the City's Zero Waste initiative.

2010

Forestry begins a program to provide free mulch to residents.

2015

City Council adopts updated climate action goals to reduce emissions.

2019

The City updates its comprehensive plan, City Plan, as well as its Transportation and Transit Plans.

2020

Emerald ash borer is detected within the Growth Management Area.

2021

City Council sets two tree-related priorities; one around tree subsidies and another to improve tree policies.

2022

Trees in Fort Collins are dedicated as important community infrastructure in Municipal Code.

2023

This plan, the first ever Fort Collins Urban Forest Strategic Plan, is funded.

Fort Collins' Urban Forest

TREES SUPPORT FORT COLLINS' STRATEGIC OBJECTIVES

The City of Fort Collins 2024 Strategic Plan outlines seven Key Outcome Areas by which the City measures progress toward its vision and goals. Trees relate to each of these seven Outcome Areas through the many benefits that they provide and show that Fort Collins is a great place to live, work and visit.

1. **High Performing Government.** The Forestry Division proactively maintains public trees and responds to hundreds of resident requests each year. It also influences private tree stewardship through arborist licensing, tree planting subsidies, City code implementation, and tree protection and preservation requirements for development.
2. **Culture & Recreation.** Trees add to the beauty and character of Fort Collins and encourage people to spend more time outdoors.
3. **Economic Health.** Trees in business districts encourage people to stay longer and participate in the local economy. Trees add value to properties and help residents save money on energy costs.
4. **Environmental Health.** Trees provide habitat for wildlife and absorb carbon and other greenhouse gasses that contribute to climate change.
5. **Neighborhood & Community Vitality.** Trees improve wellbeing and health outcomes in people by cleaning and cooling the air and reducing stress.
6. **Safe Community.** Well-maintained trees build a sense of community and are associated with reductions in crime.
7. **Transportation & Mobility.** Trees slow traffic and make streets and sidewalks safer and more comfortable for active modes of transportation.

FORT COLLINS' TREE CANOPY COVER HAS GROWN TO 13.7%

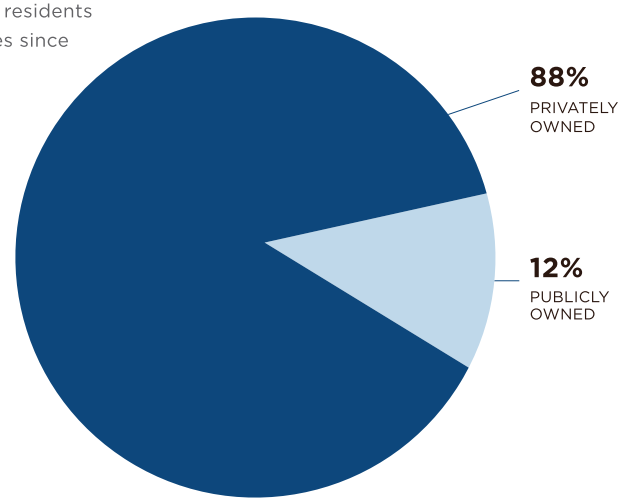
Urban tree canopy was measured across Fort Collins—where it is, how it is changing, the benefits it provides to residents, and where potential tree planting opportunities exist. The analysis used high-resolution aerial imagery from 2011 and 2021 to determine the 10-year change in canopy cover as viewed from above. It looked at land within the current city limits as well as the growth management area, which delineates the possible future extent of city boundaries.

Average tree canopy cover in Fort Collins and the growth management area is 12.6% (Map 1). Tree cover varies widely, ranging from almost no trees in some parts of the city to over 40% tree cover (Map 2). In general, tree cover tends to be highest within the oldest parts of the city, where residents have been planting trees since the nineteenth century.

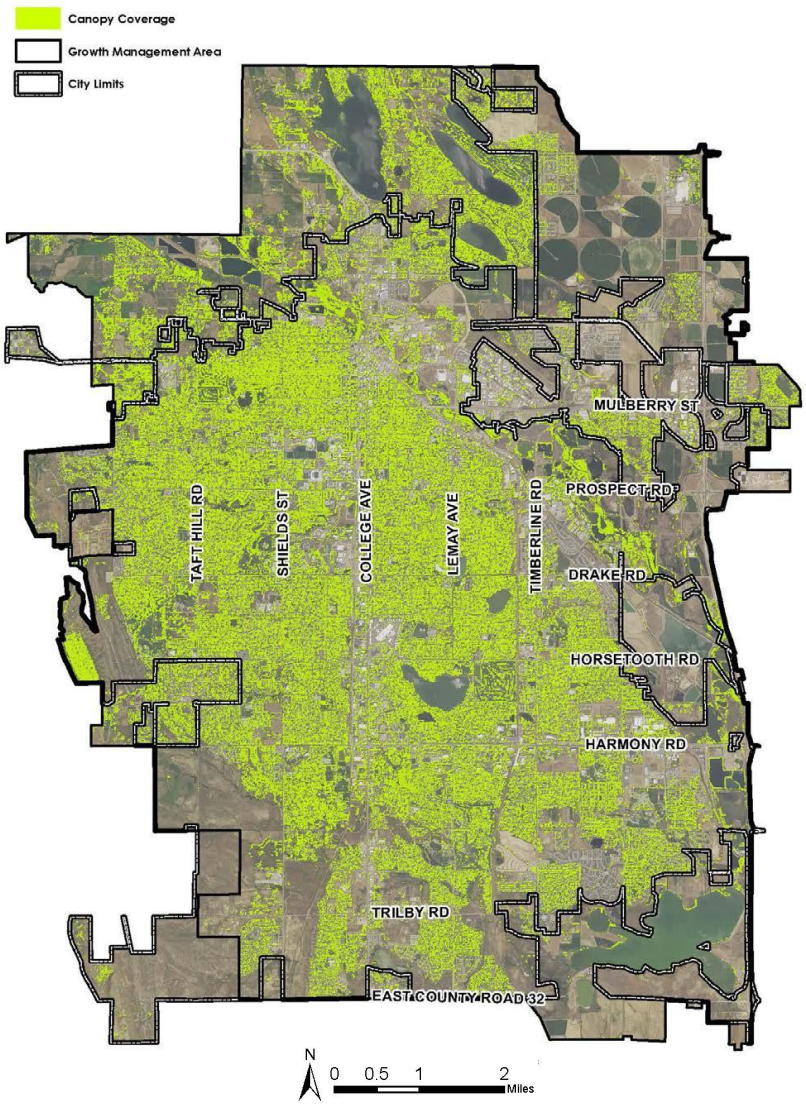
From 2011 to 2021, the city and the growth management area experienced an overall increase in tree canopy cover of 936 acres (+17.2% tree canopy compared to 2011) (Map 3).

The largest gains in tree cover took place within low-canopy areas near the borders of the city, while canopy losses tended to take place within the more densely developed commercial and industrial areas. While the tree canopy study can tell us where canopy gains and losses have occurred over time, it cannot answer specific questions about the causes of tree canopy change. However, it is known that the older age of trees within the urban core, urban environmental stressors, and development (both new and infill) are all possible drivers of canopy change over the study period.

FIGURE 2. FORT COLLINS TREE CANOPY COVER BY TYPE OF LAND OWNERSHIP.



MAP 1. TREE CANOPY COVER IN FORT COLLINS CITY LIMITS AND THE GROWTH MANAGEMENT AREA, MEASURED FROM 2021 HIGH-RESOLUTION AERIAL IMAGERY.



Tree Canopy Cover

City Limits

- 13.7% average tree cover.
- Tree cover has grown by 753 acres (+17.3%) since 2011.

City + Growth Management Area

- 12.6% average tree cover.
- Tree cover has grown by 936 acres (+17.2%) since 2011.

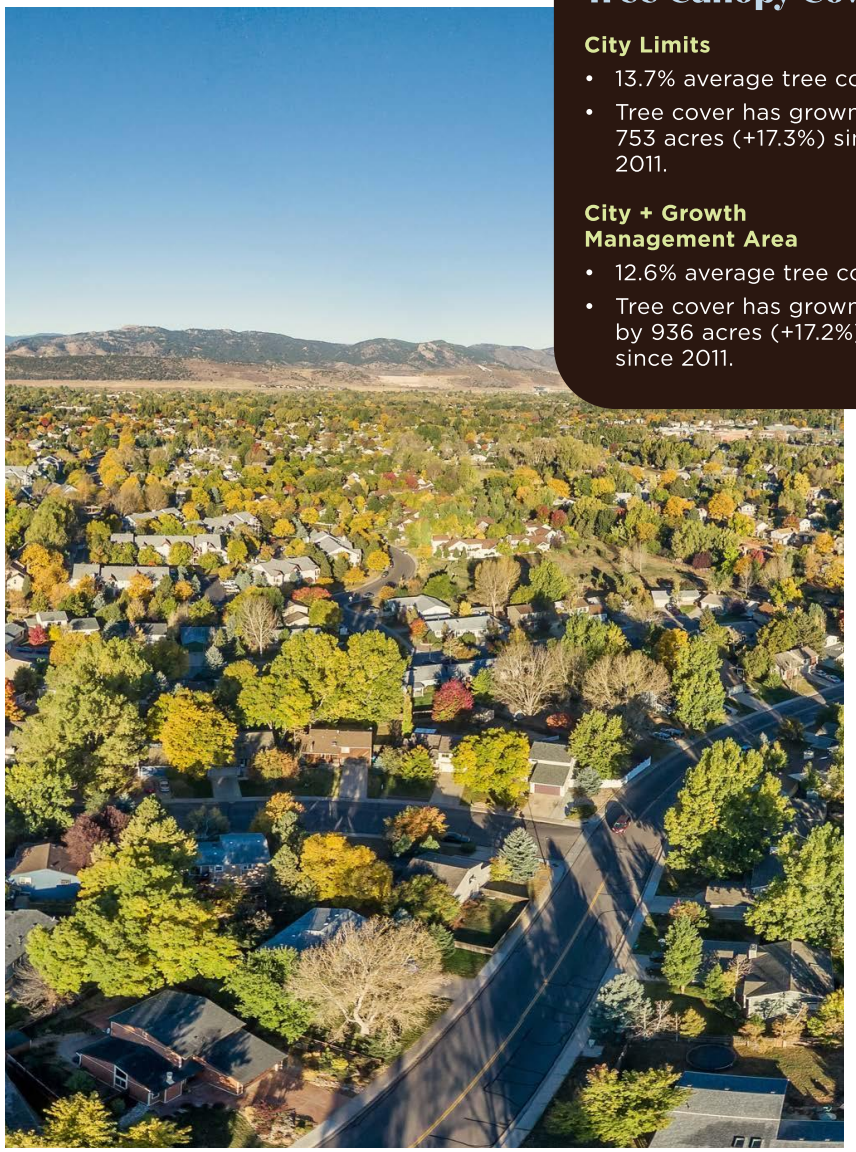
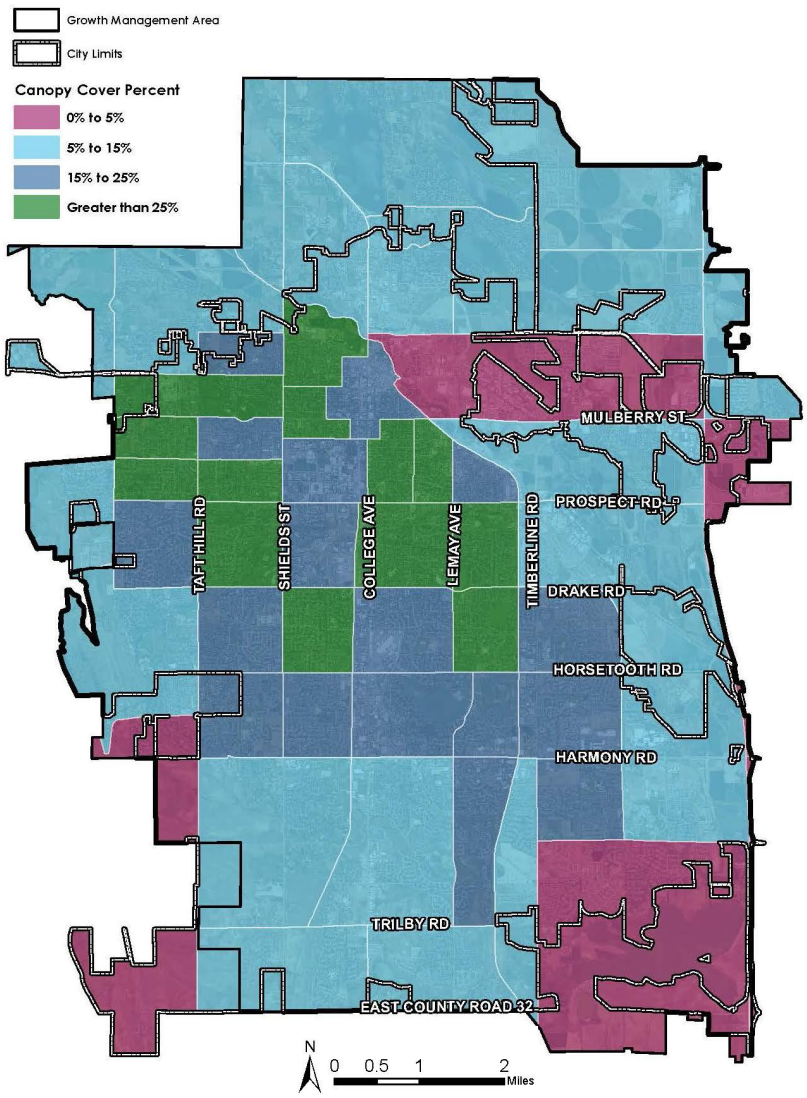
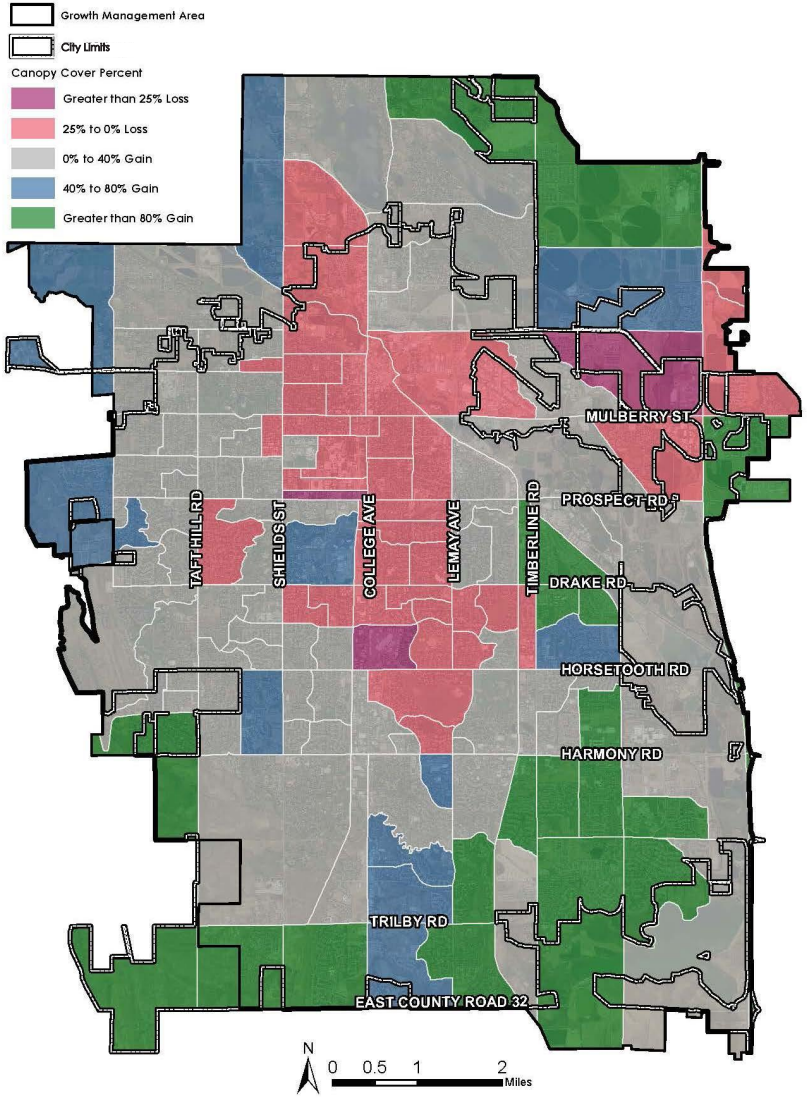


IMAGE 2. TREE CANOPY COVER IN FORT COLLINS.

MAP 2. TREE CANOPY COVER BY U.S. CENSUS BLOCK GROUP. TREE COVER IS HIGHEST WITHIN THE OLDEST PARTS OF THE CITY.



MAP 3. TREE CANOPY CHANGE BY U.S. CENSUS BLOCK GROUP, 2011–2021. TREE CANOPY LOSSES WERE HIGHEST IN THE DENSELY DEVELOPED URBAN CORE.



RESIDENTIAL LAND CONTAINS THE MOST EXISTING TREE CANOPY—AND THE GREATEST POTENTIAL FOR MORE

In Fort Collins, residential land contains over half of the city's tree canopy (Figure 3). Tree canopy has grown 15% on residential land since 2011. The largest tree canopy losses by total acreage have taken place on commercial land, which lost 30 acres (-10%) of tree cover since 2011.

The largest potential for additional tree canopy occurs within residential and mixed-use zoning types, which together contain 8,083 acres of possible additional tree canopy.

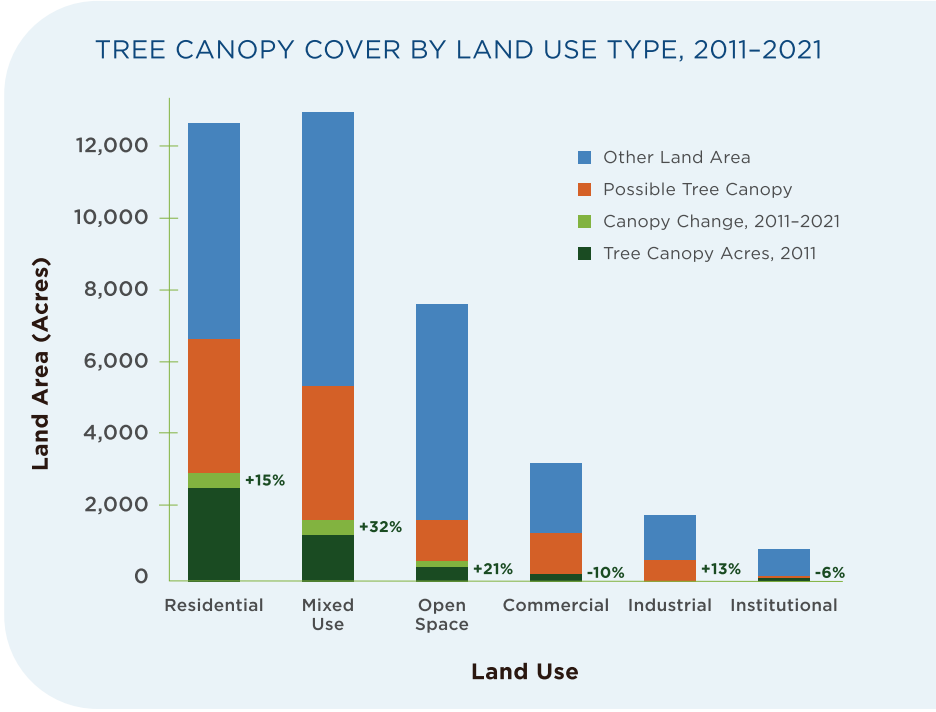
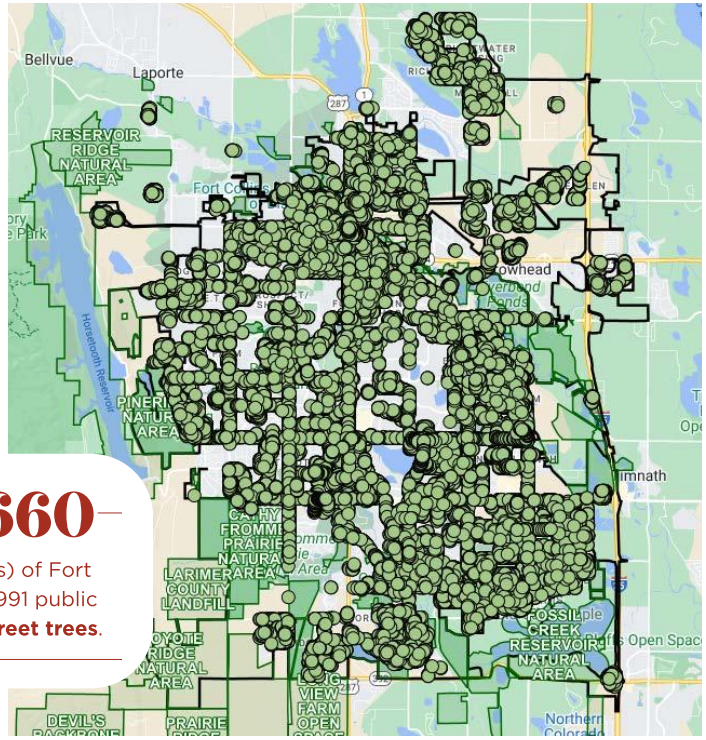


FIGURE 3. ACROSS FORT COLLINS, RESIDENTIAL PROPERTIES CONTAIN THE LARGEST PROPORTION OF CITY TREE CANOPY, AS WELL AS THE LARGEST POTENTIAL FOR FUTURE TREE CANOPY. TREE COVER HAS GROWN IN MOST LAND USE TYPES SINCE 2011.

THE SPECIES COMPOSITION, SIZE, AND CONDITION OF CITY-MANAGED (PUBLIC) TREES

From 2018–2023, the Forestry Division and trained volunteers from the City's Urban Forest Ambassador program updated the public tree inventory, documenting 57,991 trees, 2,668 vacant planting sites, and 729 stumps within street rights-of-way, parks, and City-owned property (Map 4). Detailed information about public trees is used by the Forestry Division to guide management decisions.

MAP 4. PUBLIC TREES AND PLANTING SITES AS DOCUMENTED IN TREEKEEPER TREE MANAGEMENT SOFTWARE. SELECT TREE INFORMATION IS SHARED WITH THE PUBLIC ON THE FORESTRY DIVISION'S WEBSITE.



38,660

(two thirds) of Fort Collins' 57,991 public trees are **street trees**.

PUBLIC TREES TREND CLOSE TO RECOMMENDED DIVERSITY GUIDELINES

Tree diversity helps to make the population resilient to pests and diseases. The importance of tree diversity can be seen in the effects of emerald ash borer, due to the large number of ash trees in the community.

There are at least 214 unique species of trees within the public tree inventory that represent 56 genera and 26 families. At a species level, the diversity of public trees is approaching the urban forestry industry guideline of no more than 10% of a single species present in the inventory (Figure 4).

In 2024, both green ash and honeylocust exceeds recommended limits for species abundance (Figure 4). The abundance of all ash species is expected to decline over time due to emerald ash borer. The Forestry Division is reducing the planting of honeylocust on public property and is encouraging developers to shift away from planting honeylocust as part of required street tree plantings that are associated with development.

A public tree inventory provides information about the possible management needs & vulnerabilities of the entire urban forest.

Genus- and family-level tree diversity is also important, as many tree pests and diseases have the ability to attack multiple related species. It is recommended that no one genus should comprise more than 20% of the tree inventory, and no one family should comprise more than 30%. The tree genera and families in the public inventory remain below these thresholds; however, the pest and disease susceptibility of the larger tree population remains unknown.

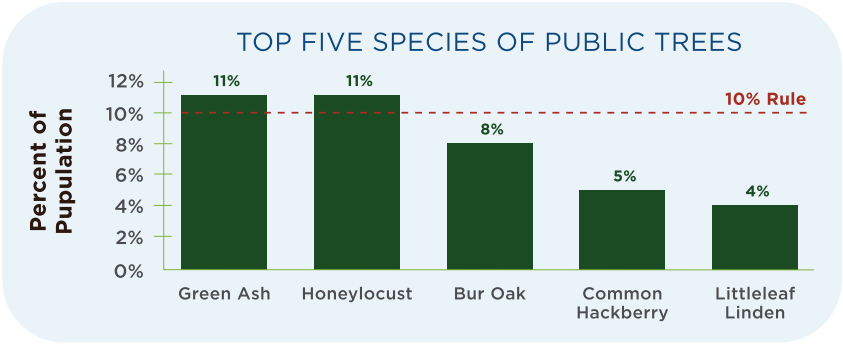


FIGURE 4. TOP FIVE SPECIES OF PUBLIC TREES. URBAN FORESTRY INDUSTRY STANDARDS FOR BIODIVERSITY RECOMMEND THAT ANY ONE SPECIES SHOULD NOT EXCEED 10% OF THE TOTAL POPULATION ("10% RULE").

PUBLIC TREES ARE IN FAIR-TO-GOOD CONDITION

The condition of public trees reflects significant investments in routine maintenance as the Forestry Division moves toward its goal of a five-year pruning cycle and away from reactive maintenance, which is comparably more costly.

More than half of public trees (55%) are rated to be in Good or Fair-Plus condition, meaning that their trunks and crowns are generally healthy and strong (Figure 5). An additional one-third (34%) are rated to be in Fair condition, indicating that they are healthy and show no major defects.

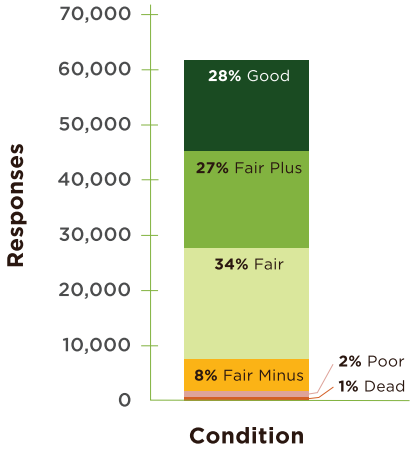


FIGURE 5. THE FORESTRY DIVISION VISUALLY ASSESSES THE HEALTH AND VIGOR OF TREES BASED ON MULTIPLE FACTORS. 89% OF PUBLIC TREES ARE RATED AS FAIR OR BETTER.

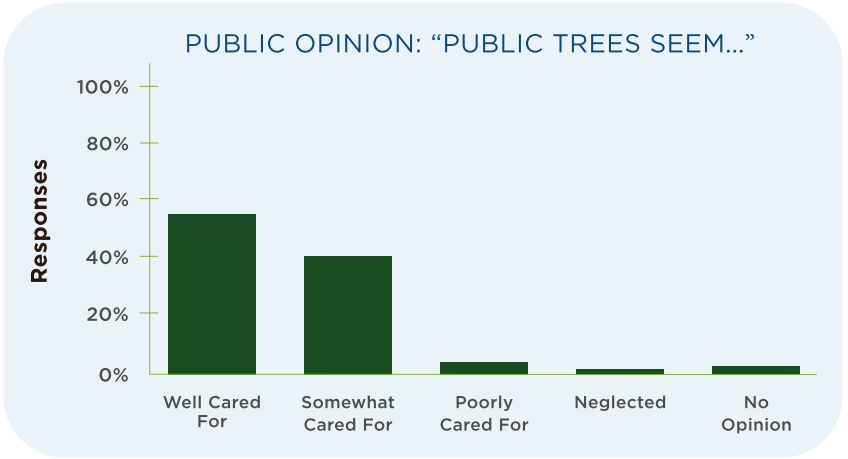


FIGURE 6. 971 PEOPLE RESPONDED TO A PUBLIC SURVEY ABOUT TREES IN FORT COLLINS. OF THOSE, 95% FELT THAT PUBLIC TREES ARE WELL OR SOMEWHAT WELL CARED FOR.

PUBLIC TREES SKEW YOUNG

A mixed-age tree population balances the maintenance needs of public trees over time and protects against significant canopy loss. Sixty percent of public trees in Fort Collins are young (Figure 7), reflecting sustained tree planting efforts within the city that have occurred primarily through new development as the city has grown.

Care of young trees during establishment, as well as proactive maintenance of older age classes, will help increase the proportion of older trees to balance age classes over time. As the urban forest grows in the number and maturity of trees, the benefits that it provides will also increase. In the next 20 years, at the present rate of planting, the population of public trees is projected to shift toward more medium-sized trees.

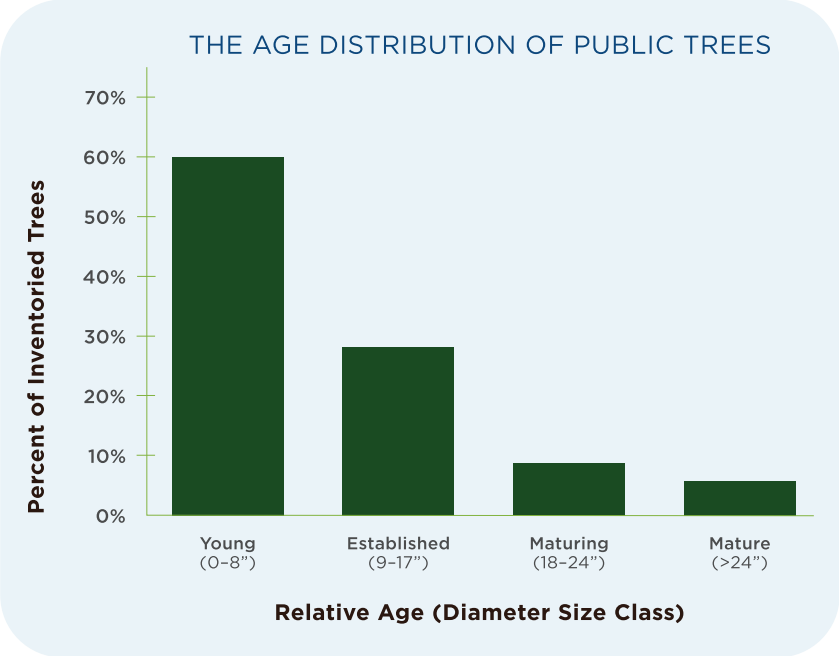


FIGURE 7. THE RELATIVE AGE OF PUBLIC TREES, ESTIMATED FROM TRUNK DIAMETER. SIXTY PERCENT OF PUBLIC TREES ARE YOUNG.

BUILDING RESILIENCE TO FUTURE THREATS

PEST SUSCEPTIBILITY OF PUBLIC TREES

Pests, diseases, and climate change are potential threats to the long-term function and survival of trees. Because tree pests and diseases often have preferred hosts, the susceptibility of the urban forest to a pest or disease can be evaluated based on its species and genus diversity.

Of the pests and diseases of concern in Colorado, emerald ash borer threatens 13% of the public tree inventory that is composed of the genus Fraxinus, with potential tree losses valued at $22 million (Table 1). Its potential impacts on private land are more profound—it is estimated that up to one-third of Fort Collins' urban tree canopy is composed of ash trees. If Asian longhorned beetle reaches Fort Collins, it threatens the greatest number of public trees in the city (36%), with potential losses valued at $51 million.

Future indirect impacts of pest and disease outbreaks include the influx of wood waste from tree losses and removals and costs associated with tree replacement. This calls for a comprehensive plan to divert wood waste from landfills and put it into productive use. Urban forest products that are made from wood waste and reclaimed wood reduce greenhouse gas emissions, support local businesses, and improve the environment; however, diverting wood waste requires a high level of planning and coordination across sectors.

TABLE 1. SUSCEPTIBILITY OF FORT COLLINS' PUBLIC TREES TO POTENTIALLY IMPACTFUL PESTS AND DISEASES OF CONCERN IN COLORADO. REPLACEMENT VALUES ARE BASED ON ACTUAL TREE ATTRIBUTES INCLUDING SIZE AND ARE CALCULATED USING I-TREE TOOLS.

PEST/DISEASE NAME	NUMBER OF SUSCEPTIBLE TREES	PERCENT OF PUBLIC TREE INVENTORY	TREE REPLACEMENT VALUE ($)
Asian longhorned beetle	20,687	36%	$51,310,744
Spotted lanternfly	8,628	15%	$13,100,340
Emerald ash borer	7,388	13%	$22,038,024
Pine wilt nematode	3,830	7%	$9,957,809
Dutch elm disease	2,351	4%	$14,876,845
Spruce Ips beetle	2,046	4%	$9,102,307

Drought Tolerance of Public Trees

- At least 4% of public trees in Fort Collins have LOW drought tolerance, and at least 64% have MEDIUM drought tolerance.
- The public tree inventory is gradually collecting information about irrigation status.

CLIMATE VULNERABILITY & RESILIENCE

Future climate predictions include more severe and intense storms as well as more frequent periods of extreme heat, drought, and early and late freezes in Fort Collins, all of which can create challenging conditions for trees.

Although trees require water to survive, in irrigated spaces, trees save water by cooling air and surface temperatures and by capturing natural precipitation, which reduces the amount of irrigated water that is lost through evapotranspiration. Planting trees over turfgrass reduces total outdoor water consumption by up to 50%. For these reasons, tree planting and stewardship in public and private spaces aligns with and benefits Fort Collins' efforts to conserve water now and into the future.

Mature tree canopy **reduces total water use** in irrigated landscapes.

Strategies for Drought and Climate Resilience

Trees cool the air and take decades to reach maturity. For these reasons, it is important to ensure the survival of trees during periods of drought. A combination of emergency response actions and long-term strategies can help reduce tree losses during drought.

Water new trees during establishment.
Newly planted trees are particularly sensitive to drought stress. They require regular water during establishment, whether as natural precipitation or supplemental water. The Forestry Division waters newly planted public trees for two years. In the future, Forestry is prioritizing irrigated spaces for new tree plantings to ensure their long-term survival.

Give trees dedicated irrigation.
Dedicated irrigation valves or zones allows for deeper watering of trees than the rest of the landscape requires. The City is shifting to dedicated irrigation to trees in anticipation of a warmer climate in the future. All public Capital Improvement Projects along streets and in new parks now include dedicated irrigation to trees.

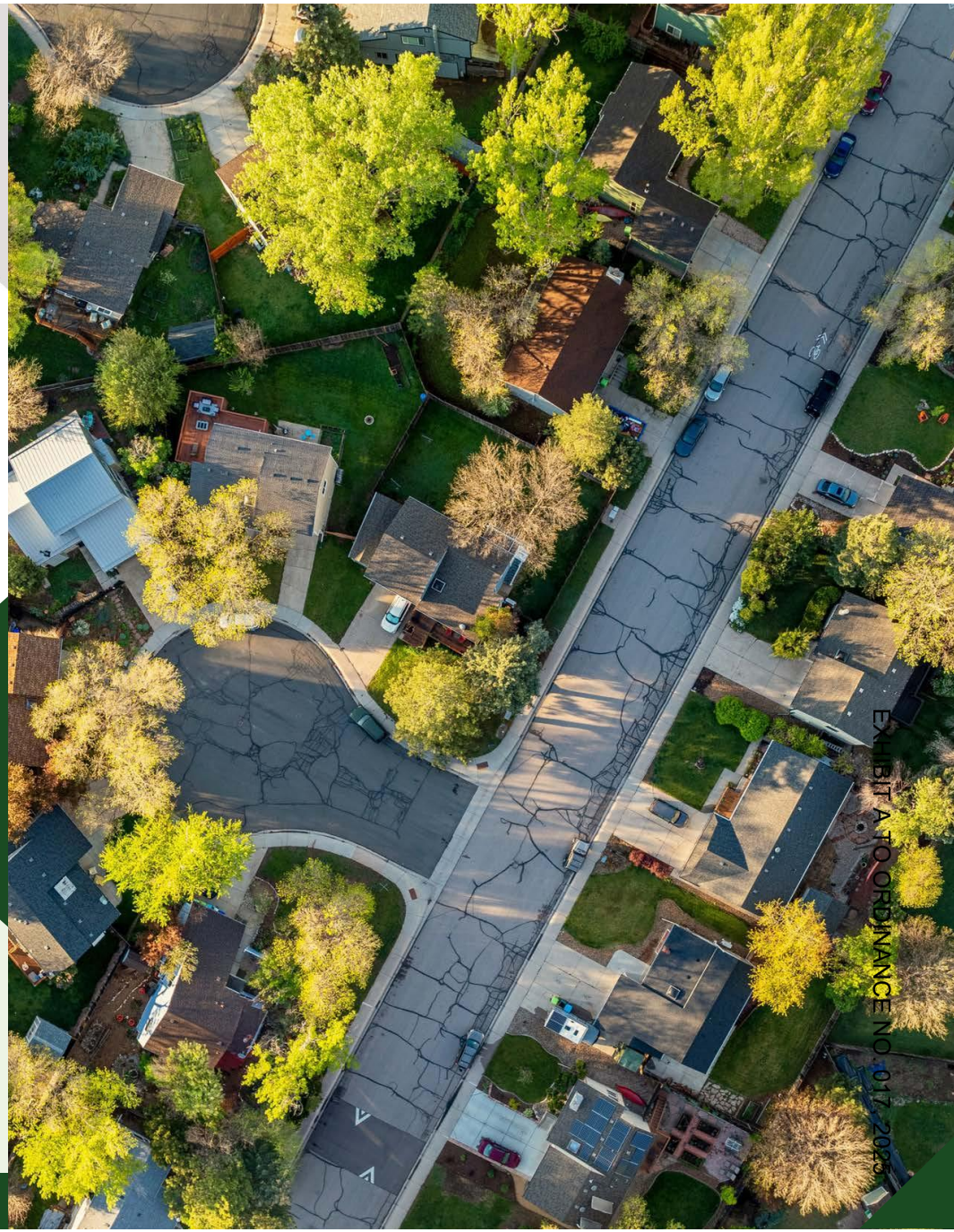
Create a drought response plan.
Forestry has begun to collect information about irrigation status as part of its tree inventory. Inventory information about species and site characteristics can be used to create an emergency response plan. This helps to identify trees that need supplemental water during drought and priority locations for new irrigation. In drought response, trees can be prioritized on factors including the water needs of trees based on their species or microclimate, and the importance of trees based on their size, species, and/or cultural value.

Plant more drought-tolerant species where possible.
The increasing availability of drought-tolerant, urban-adapted tree species presents additional options for future planting. Species recommendations, such as the trees and shrubs that are recommended by Plant Select, have few specimens in the existing public tree inventory, demonstrating a potential for increased use. Collaborative partnerships with local growers will be needed for the continued management of pests and to secure desired climate-resilient nursery stock.

Summary of Findings

- Tree canopy cover in Fort Collins and the Growth Management Area is 12.6% and has grown steadily over the past decade. The extent of tree cover varies widely across the city and the growth management area, ranging from almost no trees to over 40% tree cover.
- The largest gains in tree cover took place within low-canopy areas near the borders of the city, while canopy losses tended to take place within the more densely developed and treed urban core.
- The inventory of 61,388 public trees and planting sites in Fort Collins revealed that the diversity of public trees is approaching a level that will help the urban forest remain resilient to pests and diseases. Future management considerations should include planting species that are resilient to emerging pests, diseases, and climate change.
- The condition of 89% of public trees is rated as Fair or better. This is a reflection of investments made by the Forestry Division in routine maintenance, with a goal of moving away from reactive maintenance and toward a five-year pruning cycle.
- Fort Collins' public trees skew young, reflecting an uptick in more recent tree plantings that are associated with city activities and increased development. Future maintenance needs are expected to increase over time as new trees are planted and existing trees grow into larger size classes, which will require additional resources for the Forestry Division to keep pace.

2 TREES ENHANCE NEIGHBORHOOD & COMMUNITY VITALITY



Trees Enhance Neighborhoood & Community Vitality

Trees provide innumerable benefits to the people of Fort Collins, making the city a more comfortable, healthy, and vibrant place to live. Tree benefits also help to offset expenditures that are needed for tree planting and maintenance. Because of the benefits that trees provide, issues around building more equitable tree canopy relate to larger conversations about social equity, environmental justice, and resilience.

FORT COLLINS' TREES PROVIDE $2.2 MILLION IN BENEFITS EACH YEAR

Some tree benefits can be assigned a monetary value that is based on avoided costs—this includes air pollution reduction, stormwater runoff mitigation, and carbon sequestration and storage (Table 2). Based on these benefits alone, Fort Collins' trees produce at least $2.2 million in ecosystem services each year. This amount has increased in the past decade with tree canopy growth. As of 2024, Fort Collins' trees provide an additional $346,000 in services each year than in 2011.

Of these benefits, public trees account for more than $69,000 in annual benefits and have an estimated replacement value of $112 million. Replacement value is the cost of replacing a tree with tree(s) of a similar species, size, and condition in the same location.

TREES HELP RESIDENTS SAVE MONEY

Trees save energy by providing shade and blocking wind, which reduces the need for heating and cooling and lowers energy costs for homes and businesses. Properly placing three trees around a home can reduce energy costs for the average household by $100 to $250 per year. Trees that shade air conditioning units can help them run up to 10% more efficiently.

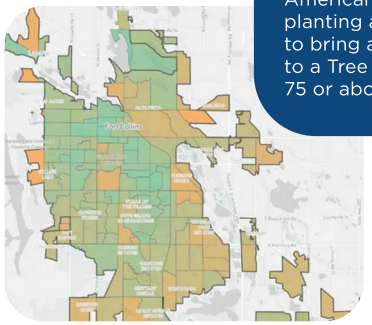
Trees also help residents save money on health care costs. Trees reduce the incidences of medical complications due to asthma, heart disease, and heat-related illnesses.

American Forests' Tree Equity Score

The Tree Equity Score by American Forests measures the equitability of tree canopy benefits using climate, demographic, and socioeconomic data. A Tree Equity Score ranges from 0 (least equitable) to 100 (most equitable).

Fort Collins has an average Tree Equity Score of 87 out of 100 from American Forests.

American Forests recommends planting at least 4,574 trees to bring all block groups to a Tree Equity Score of 75 or above.



In Fort Collins, 17 block groups (orange) are High or Highest priority for increasing tree equity. Planting here will provide the greatest impact on resident wellbeing.

TABLE 2. ECOSYSTEM BENEFITS PROVIDED BY FORT COLLINS' TOTAL TREE CANOPY AND ITS PUBLIC TREES, AS ESTIMATED BY I-TREE TOOLS.

ECOSYSTEM BENEFITS	ALL TREES			PUBLIC TREES	
Annual Benefits	**Quantity**	**Value**	**2011–2021 Change**	**Quantity**	**Value**
Air quality: pollution removal (pounds)	570,300	$942,949	$145,068	21,320	$32,038
Carbon sequestration (tons)	5,810	$991,666	$152,564	276	$47,013
Stormwater: avoided runoff (gallons)	35,130,000	$313,902	$48,292	2,318,837	$20,721
Total Annual Benefits		**$2,248,517**	**$345,924**		**$69,374**
Structural Value					
Carbon storage (tons)	226,820	$38,684,069	$5,951,395	18,616	$3,175,046
		Replacement Value		**$112,489,358**	

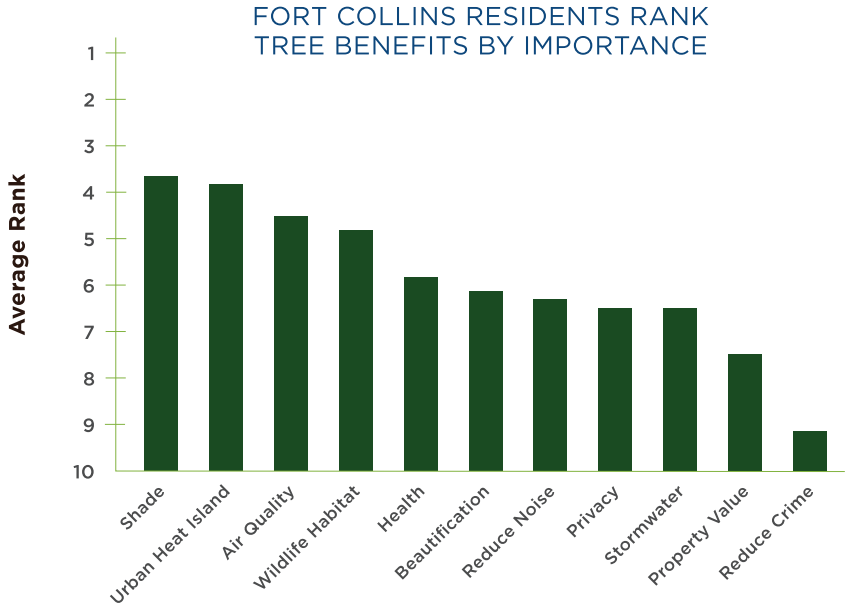


FIGURE 8. AMONG 971 RESPONSES TO A PUBLIC SURVEY, FORT COLLINS RESIDENTS WERE ASKED TO RANK THE TREE BENEFITS THAT THEY VALUED THE MOST, WITH A RANK OF 1 BEING HIGHEST. RESIDENTS PRIORITIZED BENEFITS THAT MAKE THE CITY A MORE COMFORTABLE PLACE, SUCH AS SHADE, HEAT REDUCTION, AND BETTER AIR QUALITY.

Trees and Environmental Health

Trees provide innumerable ecological benefits that improve urban environments:

Trees Cool Our Cities.
High temperatures in urbanized areas contribute to *urban heat island effect*, in which impervious surfaces such as roads, buildings, and sidewalks trap and hold heat. Urban heat island can raise air temperature in cities up to 7°F higher during the day and 5°F higher at night compared to neighboring rural areas. Urban heat island raises energy costs and power plant emissions and increases heat-related illnesses, which cause more deaths in the United States each year than any other natural disaster. Large, healthy trees lower temperatures through both shading and evapotranspiration. Trees reduce peak summer temperatures by 2-9°F and prevent an average of 1,200 heat-related deaths each year in the U.S, making them a critical tool to combat the negative health impacts of high temperatures.

Trees Clean the Air.
Trees act as natural air filters, removing pollutants from the air and reducing their negative impacts on humans and the environment. Through the removal of air pollutants, trees save over 850 lives and prevent 670,000 incidents of acute respiratory symptoms in the U.S. each year. Trees are also an important carbon sink for climate change mitigation through the removal of carbon dioxide and greenhouse gasses from the air. One large, healthy oak tree growing in Fort Collins can remove over 30 pounds of pollutants from the air over 20 years.

Trees Intercept and Conserve Water.
Trees intercept and retain stormwater, reducing runoff and water pollutants by 20%–60%, thereby reducing flooding, erosion, and the level of sediment and pollutants that enter local waterways. A mature deciduous tree can intercept 700 gallons of stormwater per year, and a mature evergreen tree can intercept 4,000 gallons of water per year. Underground, tree roots and decomposition help to increase the amount of water that soil can hold, allowing for more efficient use of irrigated water. In addition, the cooling effects of trees during summer months help to reduce the amount of moisture that is lost through evaporation. Through both processes, trees can retain water in the soil and reduce irrigation quantity and frequency.

Trees Provide Food & Habitat for Wildlife.
Trees provide habitat and food for a wide variety of wildlife, supporting biodiversity and maintaining the health of local ecosystems. Oaks can support over 500 species of pollinators and other beneficial insects. In the Colorado Front Range, broadleaf deciduous forests outside of riparian areas are relatively new to the region. The tree canopy of Fort Collins provides migratory birds with an important stopover point. At the same time, trees can provide refuge for species such as hawks and corvids that hunt or outcompete native grassland birds and mammals. For these reasons, tree canopy in natural areas must be thoughtfully placed. In backyards and along streets, however, tree canopy acts as an important buffer for wildlife within the built environment.

Trees Enhance Neighborhood & Community Vitality

Canopy Cover: Bike Lanes & Bus Stops

Bus Stops

- 18.3% average tree cover.
- Bus stops have lost 3.7% tree cover since 2011.

Bike Lanes

- 9.5% average tree cover.
- Tree cover has stayed about the same (+0.1%) since 2011.

TREES SUPPORT FORT COLLINS' SHIFT TO ACTIVE TRANSPORTATION

Trees support the City's goal to build a low-stress, high-comfort active transport network that promotes a physically active and environmentally sustainable community (Transportation Master Plan, 2019). Trees growing in street rights-of-way help to slow traffic, making streets safer and more attractive for use by pedestrians and cyclists. Shade and evapotranspiration cooling provided by street trees allow for more comfortable walking, biking, and use of public transit and increase the appeal of cycling routes. Trees and other vegetation can also reduce the exposure of cyclists and pedestrians to air pollution.

Encouraging individuals to shift their short vehicle trips to active transportation modes (e.g., biking, walking) is one of the most effective ways to reduce vehicle miles traveled, a goal of both the City's transportation master plan and Our Climate Future plan (2021).

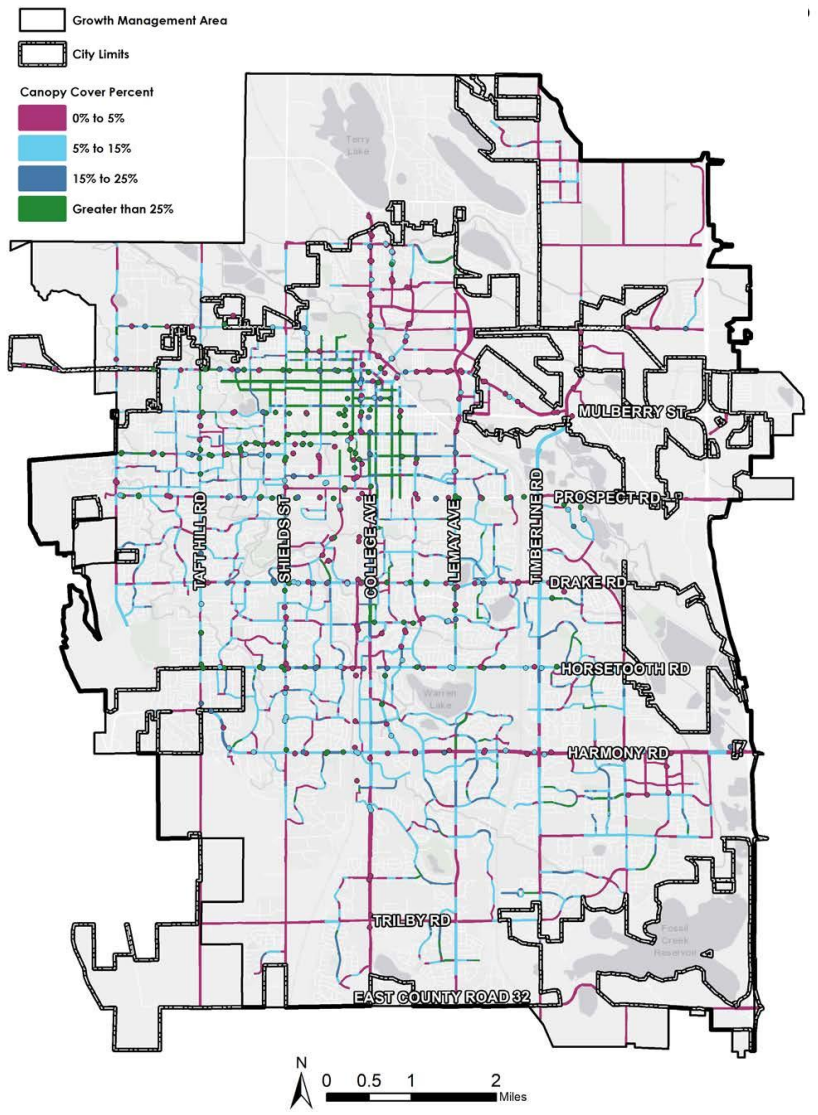
Bus Stops. Trees provide shade that can make waiting for the bus more comfortable during summer months. Average tree cover is 18.3% at the 22 bus stations and 423 bus stops across Fort Collins, a loss of 3.7% cover since 2011 (Map 5).

Bike Lanes. Trees not only shade bike lanes; they also contribute to the safety of cyclists by slowing traffic. Over the 267 miles of bike lanes across Fort Collins, average tree canopy cover is 9.5%, approximately the same as it was in 2011 (+0.1%).

BALANCING THE COSTS & BENEFITS OF TREES

As with all infrastructure, tree placement requires considerations for maintenance and safety. Trees can increase some of the maintenance needs of streets and sidewalks, such as the frequency of street sweeping. Trees may also cause heaving of sidewalks where trees have been planted in narrow parkways (<6 feet width), in spaces with poor soil preparation and/or compaction, or in places where the tree species and the planting site have not been well matched. In colder months, snow and ice can persist within the shadows of trees, creating a slipping hazard for pedestrians. On the other hand, shade from trees increases the lifespan of asphalt. While tree maintenance can be costly, the benefits of trees often outweigh the additional maintenance costs. Careful placement of trees can reduce both risk and cost.

MAP 5. TREE CANOPY COVER WITHIN BIKE LANES (BY STREET SEGMENT) AND WITHIN 30 FT OF BUS STOPS AND TRANSIT STATIONS.

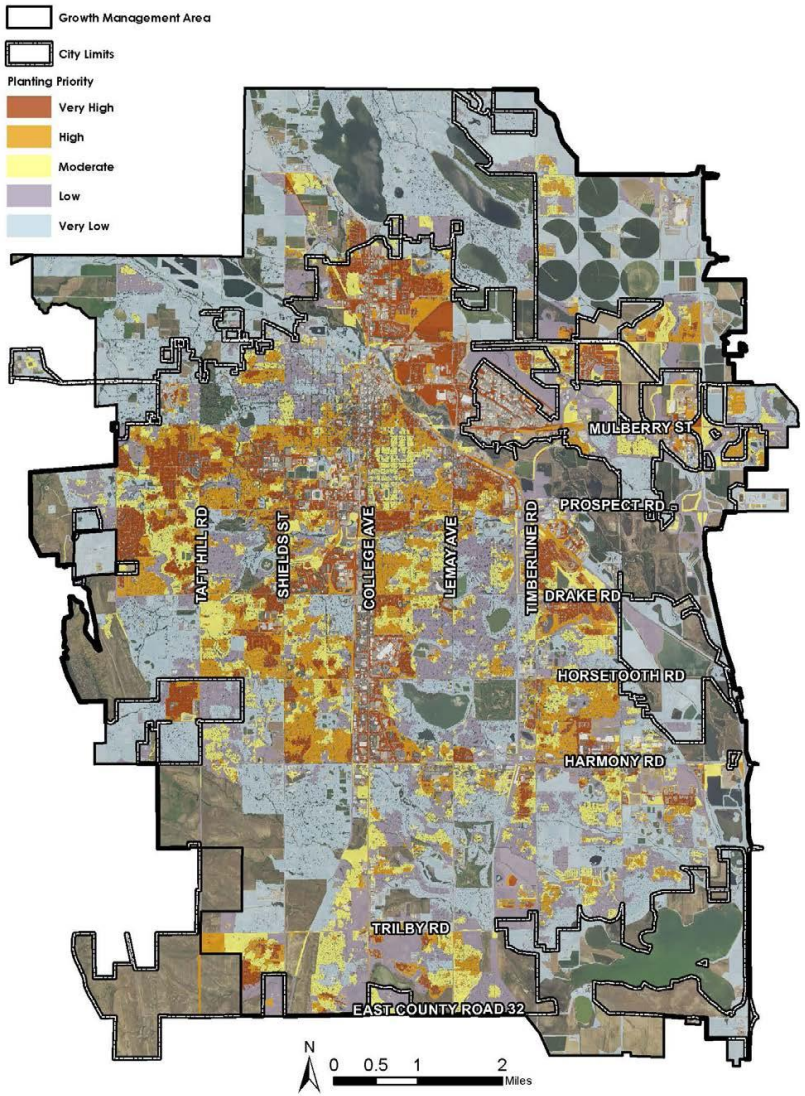


A FUTURE OF MORE EQUITABLE TREE CANOPY

The tree cover analysis of Fort Collins identified 15,418 acres of possible tree planting area within city limits and the growth management area, on both public and private land. Possible planting area excludes places where tree canopy would conflict with land uses, such as agricultural fields, recreational fields, and major utility corridors.

A priority planting analysis ranked possible tree planting area on a five-point scale from Very Low to Very High, based on the potential for trees to benefit the environment, human health, and social equity (Map 6). The analysis identified 2,250 acres of High or Very High priority where additional tree canopy can capture stormwater, reduce urban heat, improve health outcomes, and benefit vulnerable communities.

MAP 6. COMPOSITE PRIORITY PLANTING AREAS THAT MAXIMIZE THE ENVIRONMENTAL, SOCIAL, AND HUMAN HEALTH BENEFITS OF TREES.



Trees Enhance Neighborhood & Community Vitality

COMMUNITY PRIORITIES

Findings from the community engagement process demonstrate that the people of Fort Collins value trees and understand the myriad ways that trees enhance quality of life in the city.

Residents and urban forestry partners noted these opportunities for future growth of the forestry program:

- Residents are invested in the ongoing management of Fort Collins's trees and want to be involved in decisions about how the City will help ensure tree canopy preservation and growth into the future.
- Forestry Division partners, both internal and external to City government, underscored the collaborative nature of Forestry staff and the high level of expertise and service that they provide.
- Forestry partners want to continue to foster growth and collaboration among Forestry, other City departments, and external partners, for example, by ensuring that Forestry is at the table in other planning efforts.
- Both residents and Forestry partners are interested in resources that will help them be effective stewards of tree canopy, including informational resources, financial resources, and opportunities for involvement in urban forestry.

Public Involvement in Plan Development

The Urban Forest Strategic Plan was created with community feedback that was provided through:

Three Public Meetings

- October 2023 & March 2024.
- North & South Fort Collins.
- 160 participants.

One Community Survey

- September–December 2023.
- 971 respondents.
- 657 write-in comments.
- In partnership with Our Climate Future Community Consultants.

Nine Partner Focus Groups

- October–December 2023.
- 49 representatives from local organizations, institutions, businesses, and government entities.

One Public Draft Preview

- August–September 2024.
- 210 page visits, 54 downloads.
- 2-week preview and comment period.

Summary of Findings

- Fort Collins' trees produce at least $2.2 million in air quality, stormwater, and carbon storage benefits each year. Tree benefits have increased in the past decade with canopy growth. Today, trees provide an additional $346,000 in services per year than they did in 2011.
- Trees support community goals to promote a physically active and environmentally sustainable community. Increasing tree canopy cover along bike lanes and near bus stops can be one component of a comprehensive approach to encouraging active modes of transportation.
- Many areas of greatest tree canopy loss have occurred where tree canopy is most needed to build social equity (see Maps 3 and 6). Priority planting maps can be used to guide future planting efforts on both public and private land, to add trees where they can have the greatest impact.
- Residents and urban forestry partners are interested in resources that can assist them with tree planting and maintenance as well as opportunities for input and involvement.
- Residents value trees for the myriad ways that trees enhance the quality of life in Fort Collins.

3 A HIGH-PERFORMING FORESTRY DIVISION

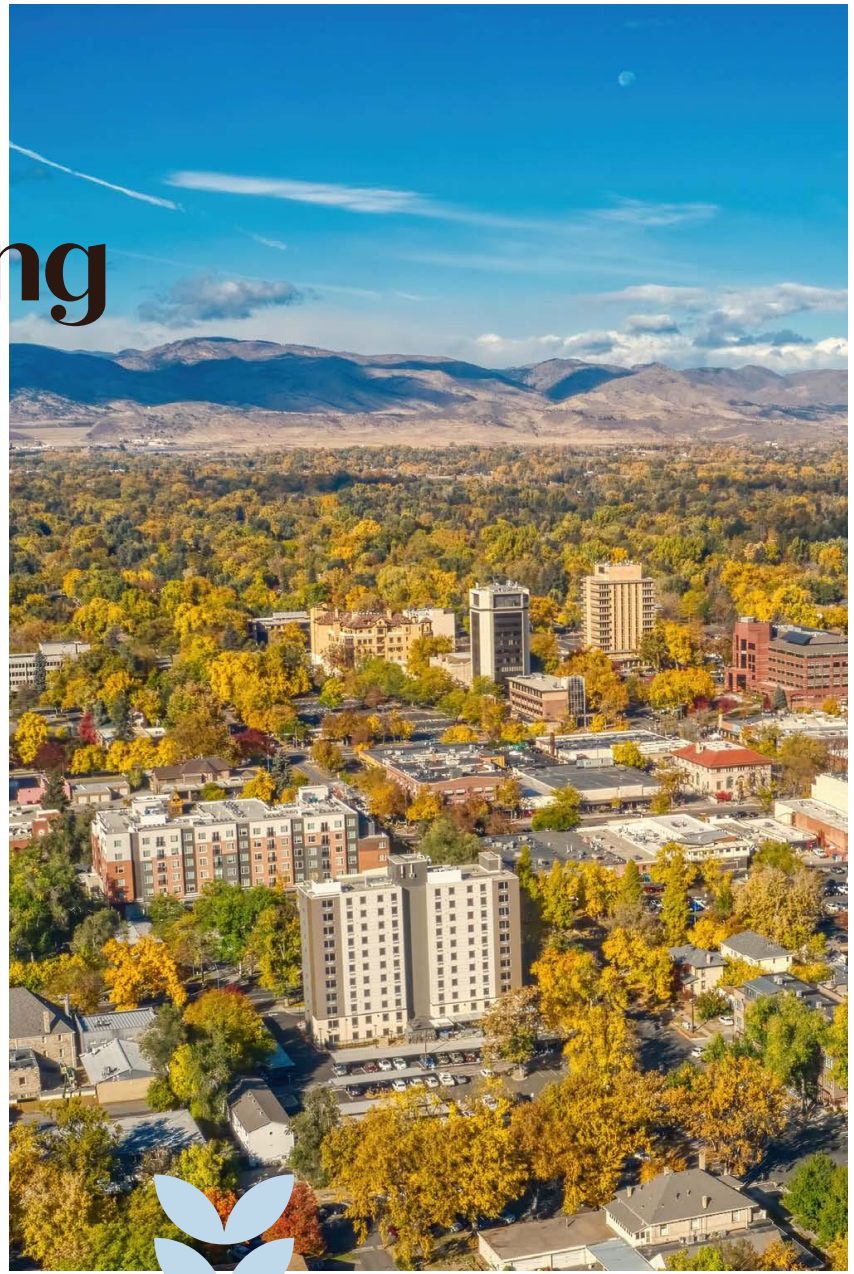
A High-Performing Forestry Division

The Forestry Division is responsible for the planting and care of public trees in Fort Collins. In recent years, Forestry has started a shift toward proactive maintenance. It has set a goal of maintaining public trees on a five-year pruning cycle, which reduces per-tree maintenance costs and the number of emergency and service requests. Forestry is also looking to boost the long-term resilience of the urban forest as the region contends with new tree pests and diseases and the stressors of a changing environment.

THE FORESTRY DIVISION STRIVES TO PROACTIVELY MANAGE PUBLIC TREES

Fort Collins' Forestry Division provides a high level of service in the management of its public tree inventory. Over the past decade, the Forestry Division has contributed to the city's steady canopy growth by increasing the number of public trees that it plants and prunes each year. As the inventory grows through City tree planting and development, it will be necessary to scale Forestry Division operations and capacity to keep pace.

Fort Collins is within a minority of U.S. cities that manage their public trees at a high level of service.



A High-Performing Forestry Division

FORESTRY IS POSITIONING PUBLIC TREE CANOPY FOR GROWTH

Proactive pruning, tree planting, and pest management are part of comprehensive urban forestry care that promotes the growth and survival of trees.

Pruning comprises a majority of yearly Forestry activities (Figure 9). As of 2024, Forestry is maintaining trees on a 5–7 year pruning cycle to maintain tree health and is making progress toward achieving a five-year pruning cycle (Figure 10). In 2022, the City reached the benchmark for a five-year pruning cycle for the first time, aided by an additional one-year budget allocation for storm response in 2021 that supported additional pruning activities. This puts Fort Collins within a minority of U.S. cities that proactively manage their public tree inventory on a routine pruning cycle of any length.

In 2021, the Division achieved a level of planting that exceeds removals, aided by $100,000 in private donations for tree planting. Also in 2021, the Forestry Division began preventative treatments of public ash trees for emerald ash borer.

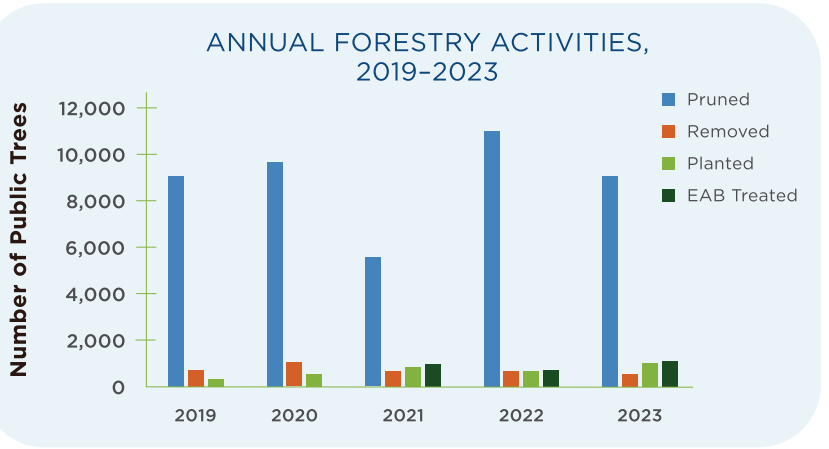


FIGURE 9. MOST OF THE FORESTRY DIVISION'S EFFORTS ARE SPENT ON PROACTIVE MAINTENANCE OF PUBLIC TREES.

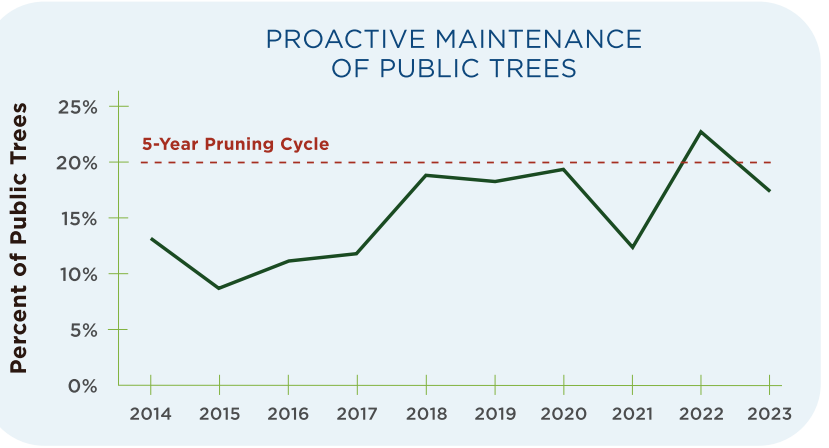


FIGURE 10. THE FORESTRY DIVISION IS APPROACHING A 5-YEAR PRUNING CYCLE FOR PUBLIC TREES. STRUCTURAL INTEGRITY, TREE HEALTH, LONGEVITY, AND FORM ARE IMPROVED THROUGH FREQUENT AND PROPER PRUNING.

Forestry Division Contributions to a High-Performing Government

Fort Collins' Forestry Division, housed within the Parks Department, provides a high level of service in the management of public trees.

Data-Driven Management. Regularly updating the urban tree canopy assessment, inventory data, and other information in this Urban Forest Strategic Plan will assist Forestry with informed decision making. The information in this Plan can also be used to inform policy updates for the strategic growth and protection of the urban forest.

Resident Involvement. Urban Forest Ambassadors are trained volunteers that assist the Forestry Division with inventory data collection. This program provides residents with an opportunity to learn more about their urban forest and contribute to its upkeep. Residents are also able to make requests related to public trees through Access Fort Collins. And more than 900 residents contributed their ideas to the creation of this Urban Forest Strategic Plan through participation in the planning process.

Integration with City Plans and Priorities. Trees and tree benefits are integrated into many City plans, including the City's strategic plan. There are future opportunities to increase Forestry involvement in planning efforts. Implementation of this Urban Forest Strategic Plan will enhance the ways that urban forestry can be related to city Outcome Areas.

FORT COLLINS' ANNUAL FORESTRY BUDGET IS ON PAR WITH OTHER CITIES WHILE DELIVERING A HIGHER LEVEL OF SERVICE

The Forestry Division is supported by the City's General Fund, which is the main operating fund for the City of Fort Collins. From 2019–2023, the Forestry Division's annual budget ranged from $2.34 million to $3.35 million. The proportion of total City budget that is dedicated to Forestry is on par with that of other U.S. cities (Figure 11).

Forestry's budget supports tree activities that are completed by in-house staff and contractors. The largest annual expenditures relate to pruning (Figure 12).

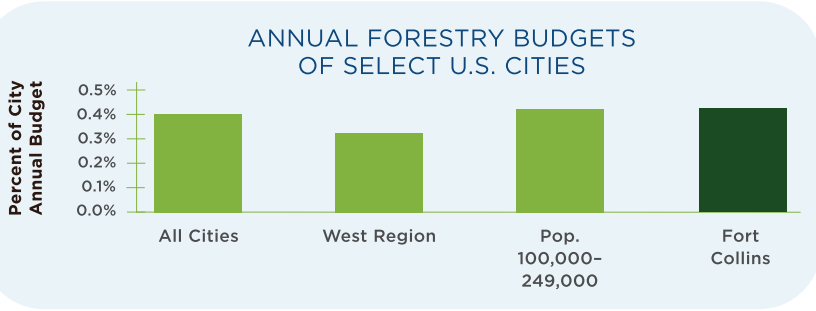


FIGURE 11. AS A PERCENTAGE OF THE TOTAL CITY BUDGET, FORT COLLINS IS ON PAR WITH THE AVERAGE FOR 463 CITIES THAT PROVIDED BUDGETARY INFORMATION TO A NATIONAL MUNICIPAL FORESTRY CENSUS.

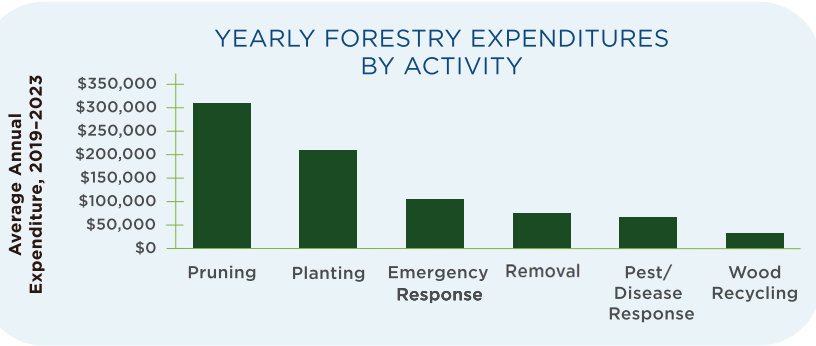


FIGURE 12. MOST OF THE FORESTRY DIVISION'S ANNUAL BUDGET FROM 2019–2023 WAS SPENT ON PRUNING PUBLIC TREES. PROACTIVE PRUNING HAS BEEN SHOWN TO REDUCE EMERGENCY RESPONSE EXPENDITURES BY UP TO 50%.

ADDITIONAL CAPACITY WILL HELP FORESTRY KEEP PACE WITH GROWTH

In 2024, the Division employs 17 full-time staff, 5 hourly staff, and receives part-time assistance from one office assistant. One additional full-time position, housed within the Zoning Department, supports Forestry needs that relate to development. The Forestry Division has identified additional needed capacity in the near term:

- **Planning & Policy Support.** An urban forest planner will help with grant writing, policy development, and the incorporation of the urban forest into long-range planning.
- **Consistent & Safe Operations.** An additional operations crew, fully equipped, will help Forestry consistently achieve a five-year pruning cycle. Additional operations capacity will also allow for crew rotations among different tree activities, which is important for helping existing staff to develop new skills and remain safe and healthy in physically demanding positions.
- **Contracted Services.** In the near term, an increase in contracted tree services can help the Forestry Division maintain the desired levels of pruning and planting until Forestry has the resources to support an additional operations crew. Thereafter, contracted tree services can supplement staff labor.
- **Growing with the Urban Forest.** New development will increase the number of trees in the public inventory. To maintain a high level of service, Forestry budgets, staffing, and resources should scale in proportion to inflation and increases in the number of public trees (Figure 13).

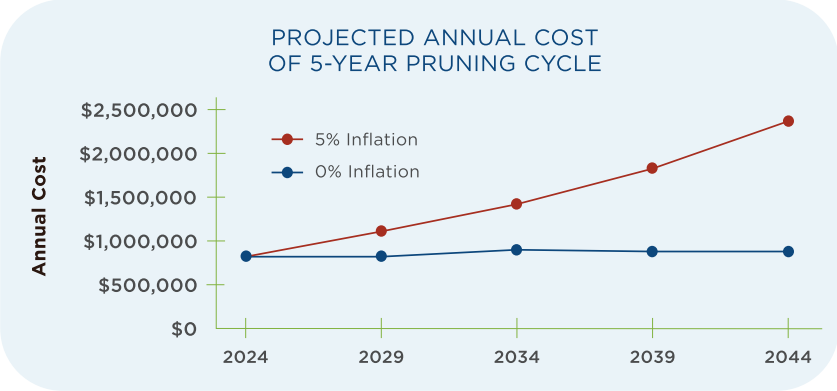


FIGURE 13. WITHIN EXISTING CITY LIMITS, THE PROJECTED PRUNING COSTS UNDER A FIVE-YEAR PRUNING CYCLE FOR PUBLIC TREE MAINTENANCE ARE PROJECTED TO GROW AT THE RATE OF INFLATION. THE NUMBER OF NEW TREES AND GROWTH OF TREES INTO LARGER SIZE CLASSES WILL BE OFFSET BY AN AVERAGE MORTALITY OF 1%–2% PER YEAR AMONG PUBLIC TREES.

FORT COLLINS ON TRACK TO ACHIEVE 15.7% CANOPY COVER BY 2040

Fort Collins is on a path to achieve 15.7% tree cover by 2040 if the previous decade's trend continues. Increasing the rate of canopy growth to deliver additional human health and environmental benefits would require a concerted effort to increase tree planting and preservation within both the public and private sector (Figure 14).

For example, growing tree cover to 17%–20% by 2040 would require additional planting or preservation of approximately 2,600–8,800 trees per year across public and private lands. The costs of such an endeavor vary but, using Forestry's per-tree expenditure from 2019–2023 as a benchmark, costs are estimated to be $1.3 million–$4.3 million per year, spread across the public and private sector. Enhanced tree protection and preservation provides an alternative to tree planting to achieve the City's canopy goal.

The population of public trees (on City property) is projected to slow its growth in the next 20 years as available vacant planting sites are filled (Figure 15). This does not account for additional tree sites that are added via development, which has averaged 1,500–2,000 trees per year in recent years.

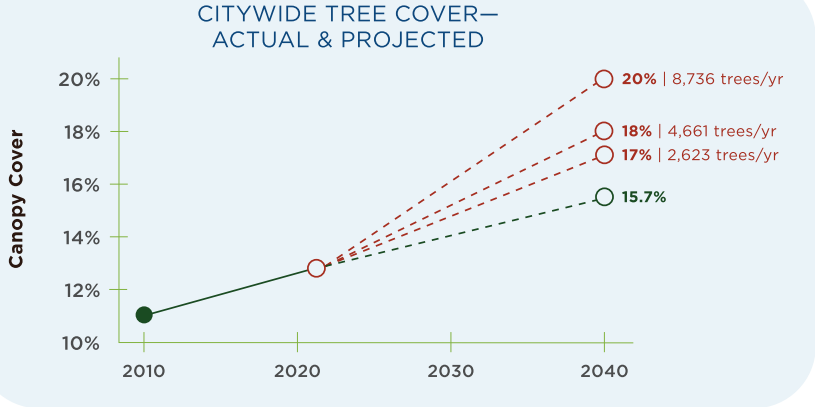


FIGURE 14. IF THE CURRENT TREND CONTINUES, TREE CANOPY COVER IS PROJECTED TO REACH 15.7% BY 2040. ACHIEVING HIGHER LEVELS OF CANOPY COVER BY 2040 WOULD REQUIRE A SUSTAINED INCREASE IN PUBLIC AND PRIVATE TREE PLANTING OVER TIME.

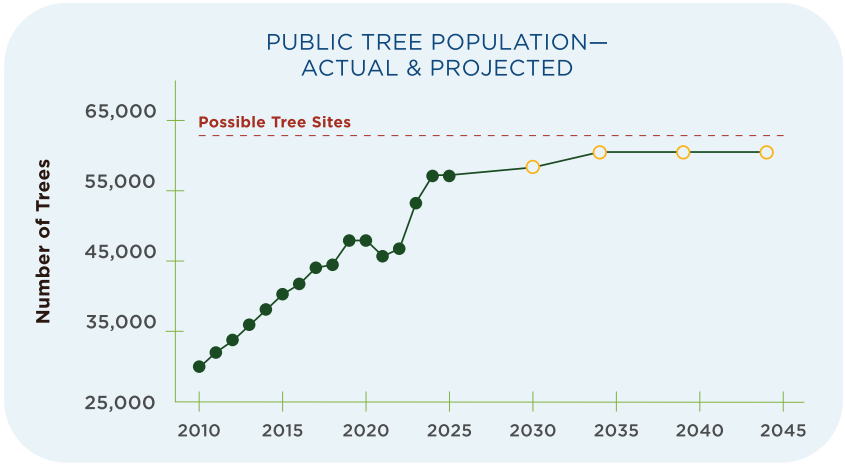
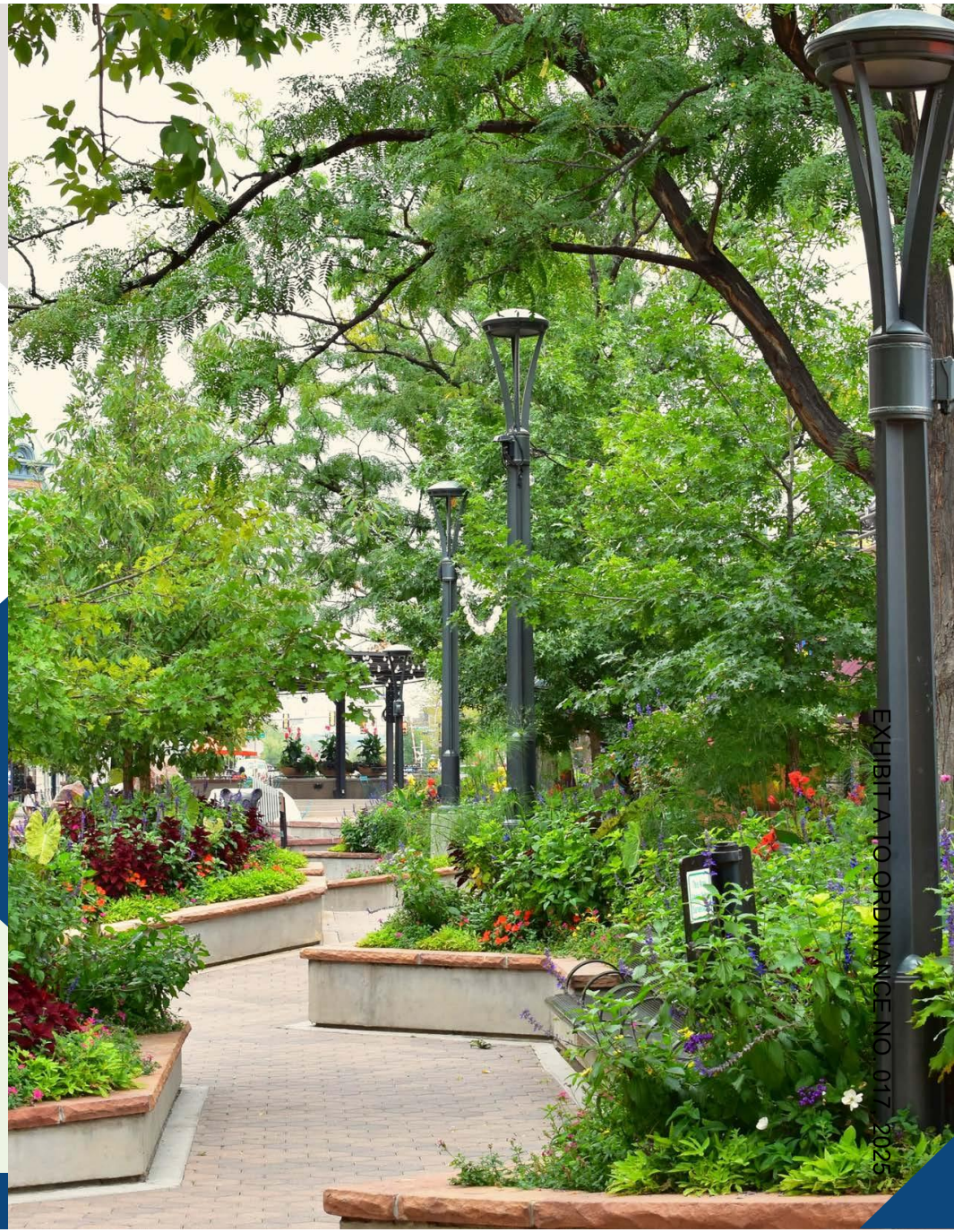


FIGURE 15. IF THE CURRENT RATE OF ANNUAL TREE PLANTING AND MORTALITY CONTINUES, THE PUBLIC TREE POPULATION WILL LEVEL OUT OVER THE NEXT 20 YEARS AS IT APPROACHES THE MAXIMUM NUMBER OF AVAILABLE PLANTING SITES (RED LINE). THIS DOES NOT ACCOUNT FOR NEW TREE PLANTING SITES THAT MAY BE CREATED BY DEVELOPMENT.

Summary of Findings

- Over the past decade, the Forestry Division has increased the number of public trees that it plants and prunes each year. The City has made significant progress toward its goal of a five-year pruning cycle.
- The Forestry Division's budget is on par with the average forestry budget for U.S. cities, while delivering a level of service that is well above average.
- The Forestry Division is fully staffed and has identified needed capacity in grant writing, plan review, and operations. To provide a high level of service, meet its annual targets, and promote the health and career development of Forestry staff, the Forestry Division has a need for an additional operations crew and associated equipment in the coming years. Labor from contracted tree services can supplement Division capacity.
- In the future, Forestry Division resources should scale with the number of new trees that are added to the public tree inventory via development, the rate of inflation, and desired increases in the rate of tree canopy growth.

4 FUTURE GROWTH STRATEGIES



Future Growth Strategies

Three themes emerged from the strategic planning process to guide stewardship of Fort Collins' urban forest over the next 20 years:

THEMES:

- BUILD RESILIENCE & WELLBEING OF PEOPLE AND TREES.
- SUSTAINABLY GROW THE FORESTRY DIVISION.
- EXPAND THE COMMUNITY'S KNOWLEDGE ABOUT TREE BENEFITS AND STEWARDSHIP.

The findings that are detailed above, as well as additional analysis that is presented in an accompanying technical appendix, informed the development of seven urban forestry Growth Strategies. Each Growth Strategy contains two levels of initiatives that can support implementation of this Urban Forest Strategic Plan. Fort Collins can select from, and refine, this menu of initiatives over the life of the Plan according to its capacity, resources, and community goals.

The Growth Strategies of the Urban Forest Strategic Plan reflect seven Outcome Areas that are detailed in the *City of Fort Collins 2024 Strategic Plan*. The most relevant Outcome Areas are listed for each strategy.

Growth Strategy 1.

STRATEGICALLY INVEST IN GROWING TREE CANOPY WHERE IT WILL PROMOTE RESILIENCE AND QUALITY OF LIFE IN FORT COLLINS.

While tree canopy is growing in Fort Collins, it is not evenly distributed throughout the city. Forestry can support multiple community goals by targeting planting and maintenance where trees provide the most value. Creating a more comprehensive planting plan to guide planting decisions can help Forestry shift species composition, source trees, and spread out maintenance needs.

Outcome Areas:

- Neighborhood & Community Vitality
- Culture & Recreation
- Transportation & Mobility
- Environmental Health

FOUNDATIONAL INITIATIVES

- Prioritize equitable planting and maintenance within areas of greatest tree canopy loss that correspond to priority areas for human and environmental wellbeing.
- Implement a parks planting plan that aligns with the Living Tribute Tree program to strategically fill vacant planting sites in parks.
- Create a more comprehensive planting plan to fill vacant planting spaces over 10 years, prioritizing underserved areas where trees are needed most. Scale annual tree planting efforts to replace public tree losses due to natural mortality and other tree removals.
- Incorporate new species that are adapted to future climate conditions, for example, drought tolerant, pest/disease tolerant, and acclimated to warmer and more extreme temperatures.
- Work with water efficiency experts to create educational resources about trees and irrigation that include species guidance, proper tree watering techniques, and tree watering protocols for water conservation. Encourage the use of dedicated irrigation for trees.
- Grow the Community Canopy Program to supply more trees to residents for planting on private property, prioritizing areas where tree canopy is most needed.
- Influence and utilize Low Impact Development design to capture stormwater to water trees.

TRANSFORMATIONAL INITIATIVES

- Coordinate with other City departments to integrate trees into a complete streets framework. Prioritize planting and maintenance along bicycle routes.
- Undertake a study of bus stops to understand patterns of recent tree canopy loss, create solutions to increase tree cover, and reduce conflicts between trees and bus infrastructure.
- Coordinate with other City departments to use smart growth urban design principles to develop a comprehensive heat mitigation plan for the built environment that prioritizes vulnerable populations. Include strategies for development, land use, and tree preservation.
- Build tree connectivity to parks and schools.
- Develop and set canopy goals for different geographies, for example, by block group, land use, or district, with a focus on underserved populations.
- Shift species composition of the urban forest toward more climate-adapted and drought-tolerant species.
- Build species-level diversity of the public tree inventory. Track the use of cultivars and varieties.
- Explore a citywide tree canopy goal that can inform planting and protection objectives for private property.
- Provide species guidance for tree giveaways and private planting.

Foundational & Transformational Initiatives

- **Foundational Initiatives.** May be simpler to implement, or more urgent, or strategies that must be completed before Transformational Initiatives can be tackled.
- **Transformational Initiatives.** May be more complicated or difficult to implement, or they may represent standalone strategies that are complex or on a long implementation horizon, but overall they may provide more value to the forestry program and the City's larger community goals and Outcome Areas.

Growth Strategy 2.

COMPLETE THE SHIFT TO PROACTIVE MANAGEMENT OF FORT COLLINS' PUBLIC TREES.

The Forestry Division strives for a five-year pruning rotation to maintain the health of public trees, create safe public spaces in the community, and reduce the cost of storm and emergency response.

Outcome Areas:

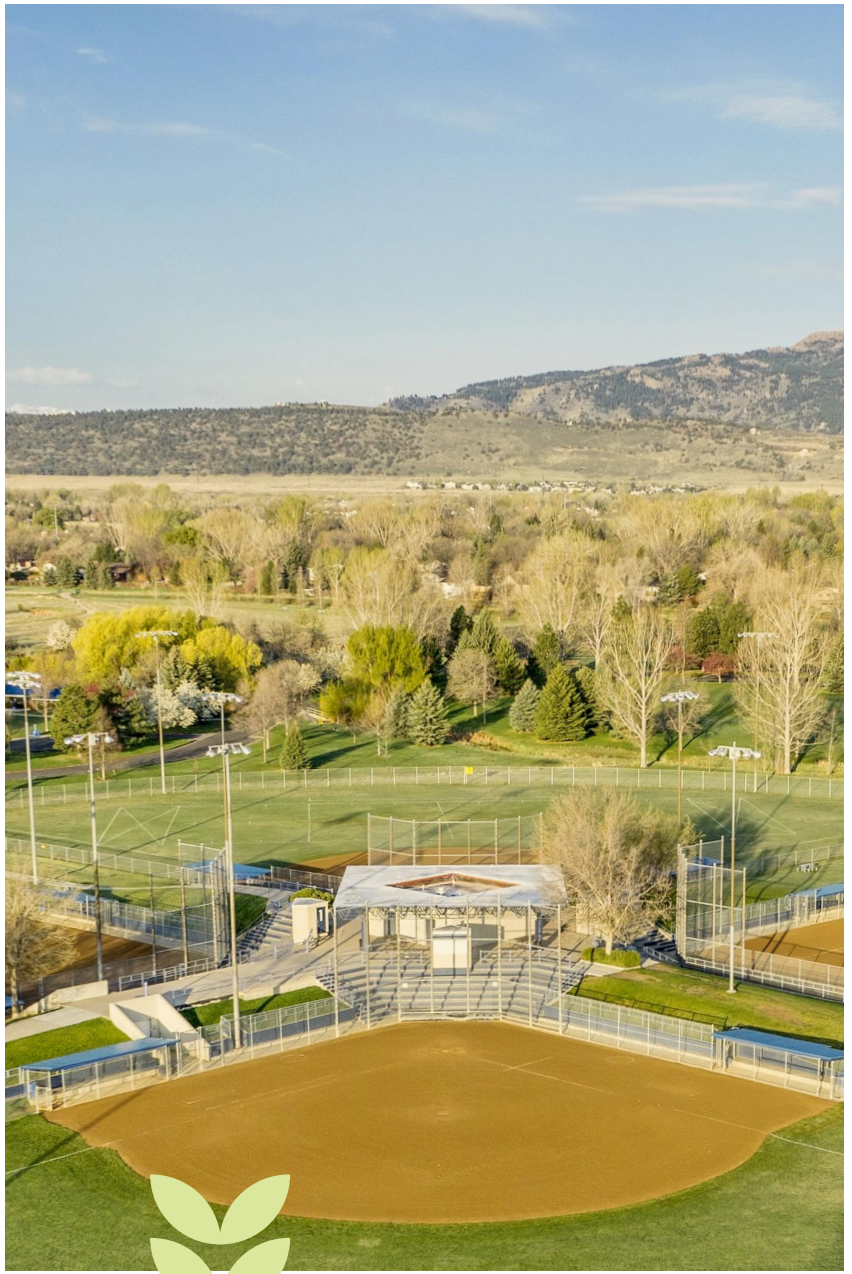
- Economic Health
- Safe Community
- High-Performing Government

FOUNDATIONAL INITIATIVES

- Implement a five-year routine pruning cycle.
- Plan to scale up pruning activities as additional trees are added to the inventory.
- Use the existing tree inventory to inform management decisions based on species and size.
- Create an urban forest management plan that details Forestry operations over the next 5–10 years.
- Incorporate the storm response plan, the City's strategic plans, Parks Master Plan, Our Climate Future plan, and other city management plans into urban forestry operations.

TRANSFORMATIONAL INITIATIVES

- Collect more detailed public tree inventory data to guide management that is based on risk rating, recommended maintenance, and/or related metrics.
- Project tree benefits under different management scenarios.
- Proactively implement climate adaptation strategies for multi-generational tree survivability and success.



Growth Strategy 3.

STRENGTHEN CITY POLICIES TO PROTECT TREES.

In 2024, Fort Collins' municipal code focuses on the stewardship of public trees; however, only 12% of the City's tree canopy is publicly owned. Opportunities to protect trees on both public and private land—whether through policy or incentives—can help curb canopy losses, mitigate heat, and protect community tree benefits.

Outcome Areas:

- Neighborhood & Community Vitality
- Environmental Health

FOUNDATIONAL INITIATIVES

- Engage the community in adopting a citywide land use code to improve tree preservation and protection while balancing other priorities and needs of the community.
- Draft a heritage tree program that allows for the elective enrollment and protection of trees that have cultural, historic, or ecological value.
- Create policy summaries or tip sheets that clarify the responsibility for tree maintenance in spaces including alleyways, property boundaries, and ditches.
- Plan for education and outreach that will guide tree protection for development scenarios on private land.
- Reference existing good practices—best management practices and manuals, ISA Certified Arborist requirements, wood utilization program—in city code.
- Develop an adaptable response strategy for current and future threats from insect and disease.

TRANSFORMATIONAL INITIATIVES

- Clarify the legal responsibility for trees within vacant and boundary areas (land without ownership) to encourage the protection and growth of tree canopy.
- Plan for tree preservation and tree canopy expansion within areas in the Growth Management Area that are to remain as future green space as identified by the Parks & Recreation Master Plan and the Natural Areas Strategic Framework.
- Demonstrate the role for trees in outdoor water efficiency by creating water-smart landscapes that incorporate trees on City property.
- Explore and expand tree protection and preservation policies within the Land Use Code to apply to non-development scenarios.
- Create educational support, incentives, and potential policy improvements to help homeowners and private property owners achieve long-term success in tree planting and preservation.
- Require landfill diversion for wood waste that originates from private land.

Future Growth Strategies

Growth Strategy 4.

COLLECT DATA TO TRACK CHANGES TO TREE CANOPY OVER TIME AND TO INFORM FORESTRY ACTIVITIES.

Accurate, up-to-date data informs sound decision making. Regular urban tree canopy assessments and tree inventory updates will provide information that can help the Forestry Division evaluate progress and refine management strategies.

Outcome Areas:

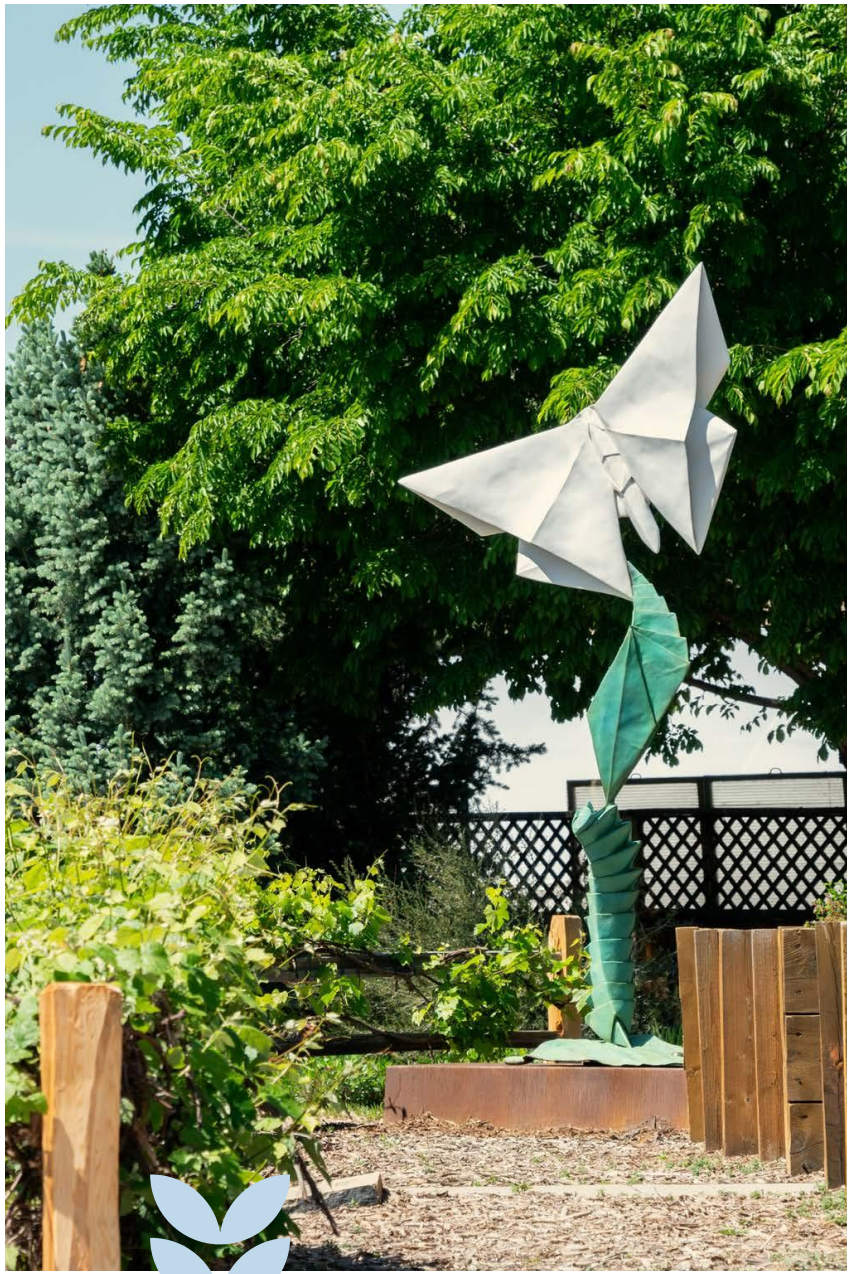
- High-Performing Government

FOUNDATIONAL INITIATIVES

- Repeat an urban tree canopy assessment in five years using 2026 data to measure canopy change. Collaborate with other City departments to expand the analysis to include additional land cover types and geographies.
- Map existing public trees that are under threat from pests and/or drought using inventory data; look for trends that may inform tree activities.
- Complete data fields for all public trees about irrigation status and emerald ash borer treatment priority.
- Conduct a sample inventory of natural areas in alignment with the Natural Areas Strategic Framework.

TRANSFORMATIONAL INITIATIVES

- Repeat an urban tree canopy assessment in two years to capture early canopy changes due to emerald ash borer. Apply advanced mapping options to guide and measure the effects of policy changes.
- Update the public tree inventory on a five-year cycle.
- Use a sample inventory to evaluate tree species composition across the Growth Management Area to better understand resilience of the urban forest to pests, diseases, abiotic stressors, and climate change.



Growth Strategy 5.

SUSTAINABLY RESOURCE THE FORESTRY DIVISION TO KEEP PACE WITH GROWTH OF THE URBAN FOREST.

As the urban forest grows, additional capacity and a sustainable funding stream will be needed to keep pace with growth of the public tree inventory. Additional metrics about tree activities will be helpful for internal planning, budgeting, and reporting to both City Council and the community.

Outcome Areas:

- Economic Health
- High-Performing Government

FOUNDATIONAL INITIATIVES

- Internally track public requests that are submitted via phone and email.
- Regularly report on budget expenditures by tree activity.
- Create work plans to make efficient use of personnel and budget.
- Acquire additional staff for tree planting/preparation and pruning.
- Add capacity for grant writing and reporting.
- Pursue grants and other limited funding opportunities.
- Contribute to local initiatives to expand the green workforce.
- Align strategies with *Our Climate Future* and leverage funding from the 2050 Tax.

TRANSFORMATIONAL INITIATIVES

- Use resource management software to track public requests.
- Create an urban forestry planner position.
- Annually or biannually report to the public on tree activities.
- Link tree activities to health, social, and environmental data, and to community data (transit ridership, cycling/pedestrian stats, city Outcome Areas) as available.
- Add at least one additional, fully equipped Forestry crew.
- Implement a staff rotation schedule. Regularly rotate Forestry staff to different teams to provide rest from physical labor and build knowledge across the team.
- Increase the space that is available to Forestry for operations, equipment, and wood waste. Locate space where it can maximize efficiency of fuel use and time.
- Increase the budget for tree maintenance over time as young trees grow.
- Create new sources of sustained funding, such as a Tree Fund, and align with City Give.

Future Growth Strategies

Growth Strategy 6.

DEEPEN ENGAGEMENT WITH THE COMMUNITY ABOUT TREE STEWARDSHIP.

There is a great amount of support for trees and urban forestry in Fort Collins from the public, officials, and the surrounding region. This public support can help facilitate conversations about private tree protections and expand engagement to new community sectors.

Outcome Areas:

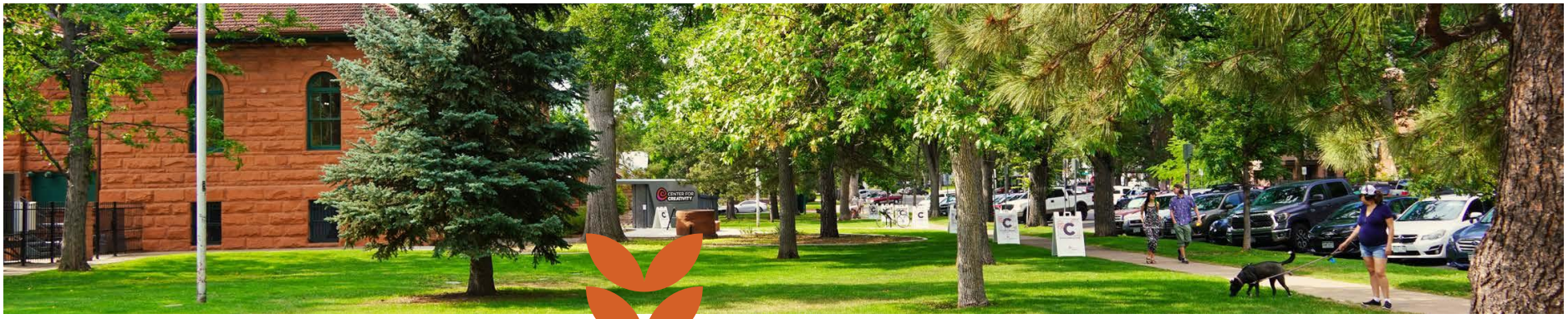
- Neighborhood & Community Vitality
- Environmental Health

FOUNDATIONAL INITIATIVES

- Engage the public in policy updates that protect trees on private property.
- Continue and grow the Urban Forest Ambassador program.
- Provide educational resources to assist property owners with private tree planting, maintenance, and preservation.

TRANSFORMATIONAL INITIATIVES

- Integrate forestry activities with implementation of the Active Modes Plan. Engage with Active Modes stakeholders including the cycling community.
- Expand engagement and volunteer opportunities into communities with health and social vulnerabilities.
- Align wood utilization efforts with larger Zero Waste initiatives.
- Engage with parks advocates; see Nature in the City and 15-Minute Walk campaigns.
- Engage with the business sector to promote trees for economic development, for example, by using trees to provide seasonal interest (e.g., Holiday Lights) and create inviting and comfortable spaces.
- Enlist community organizations to engage with their networks on topics including tree benefits, tree responsibilities, policy development, and volunteer opportunities.
- Work with other City departments and initiatives to develop and deliver coordinated education about holistic landscape management that considers trees, water, and the climate.
- Create resources on wood utilization best management practices for the public.
- Provide financial resources to assist property owners with private tree planting, maintenance, and preservation.
- Expand volunteer opportunities to assist with activities such as young tree pruning, watering assistance during drought, or community education.
- Create tip sheets that explain city code and policies in accessible, translated, and easy-to-understand language.



Growth Strategy 7.

EXPAND THE NETWORK OF FORESTRY DIVISION PARTNERS.

Technical partnerships within urban forestry are abundant across the Front Range—see for example the Colorado Tree Coalition, the Front Range Urban Forestry Council, and the Emerging Pests in Colorado (EPIC) Committee. Increasing Fort Collins' presence and role within these collectives can promote greater knowledge sharing and adaptability for the city while building staff technical skills. Involvement can also promote adoption of the latest guidance and standards.

Outcome Areas:

- Safe Community
- High-Performing Government

FOUNDATIONAL INITIATIVES

- Continue regional work with nursery growers to secure the quantity and types of climate- and pest-adapted trees that will be needed to meet planting goals.
- Share urban forestry resources and knowledge with neighboring communities.
- Expand staff involvement in regional urban forestry networks; provide additional opportunities for staff that contribute to career development.

TRANSFORMATIONAL INITIATIVES

- Encourage large corporate and institutional campuses to develop tree plans.
- Continue engagement with partners about management of public trees.
- Contribute expertise about trees and urban forestry in regional planning efforts that relate to climate resilience, complete & green streets, human health, wood utilization, etc.
- Continue to support the wood waste program and grow the regional network of urban woodworkers and wood utilization partners.

5 MOVING FORWARD

Moving Forward

> **Other holidays repose upon the past; Arbor Day proposes for the future.**
>
> —J. Sterling Morton

The trees in Fort Collins represent the deliberate, sustained stewardship of its residents over the past 160 years. Growth of the urban forest over the next two decades, and adaptation to increase its resilience in the face of future threats, will similarly require deliberate and sustained care.

The Forestry Division is well positioned to lead this effort. It has set an example of collaboration and proactive maintenance. In recent years, the Division has hit two milestones that promote the growth and health of public trees, efficient operations, and public safety: planting that surpasses tree removals, and pruning at a level that is needed to achieve a 5-year pruning cycle.

To maintain this level of service over the next 20 years, the City should make near-term plans for a permanent, modest increase in Forestry Division resources to consistently meet these management targets. Thereafter, Division resources should plan to scale with the number of new trees that are added to the public tree inventory via development, the rate of inflation, and desired increases in the rate of tree canopy growth. Grants, as well as resources such as a Tree Fund, can supplement City funding streams.

In return, tree benefits to the people of Fort Collins—including cooler, cleaner air and water efficiency—will grow and become more equitable, promoting wellbeing and sustainability over the next two decades and beyond.

IMPLEMENTATION & METRICS

The following table summarizes metrics and near-term implementation steps by Growth Strategy. It is not an exhaustive list, and it is expected that this information will change over time as the Urban Forest Strategic Plan is implemented.

1. STRATEGICALLY INVEST IN GROWING TREE CANOPY WHERE IT WILL PROMOTE RESILIENCE AND QUALITY OF LIFE IN FORT COLLINS.

Timeframe: 10–15 years.

Next Steps: Create a more comprehensive planting plan that focuses on underserved neighborhoods and low-canopied areas.

Resources: Regional forestry partners, scientists, local nurseries; transportation partners; grant funds for tree planting.

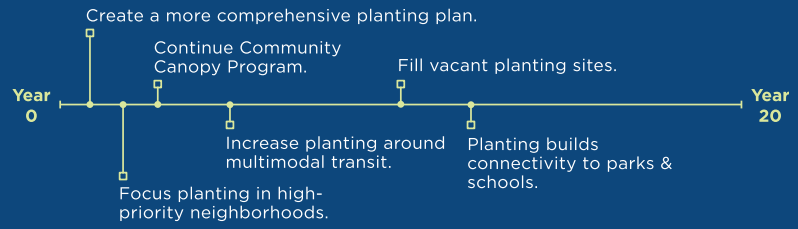
Metrics:

- Tree canopy cover: mean & variability.
- Public trees: number, size, condition, species diversity.
- Number of trees given to residents through the Community Canopy Program.
- 15-Minute City priority of City Council.
- Third-party metrics and planning frameworks for connectivity and social equity, such as Safe Routes to Schools and the Tree Equity Score (American Forests).

Success Looks Like:

- Growth in tree canopy over time.
- Smaller difference between areas of high and low tree canopy.
- Higher proportion of drought- and pest-resistant trees.
- Reduction in daytime and nighttime summer temperatures and the difference in temperature across the Growth Management Area.
- Residents will live within a 15-minute walk to nature and will have trees visible from where they live, work, and play.

Implementation Timeline



2. COMPLETE THE SHIFT TO PROACTIVE MANAGEMENT OF FORT COLLINS' PUBLIC TREES.

Timeframe: 5 years.

Next Steps: Create an urban forest management plan.

Resources: Urban Forest Ambassadors, pruning contractors.

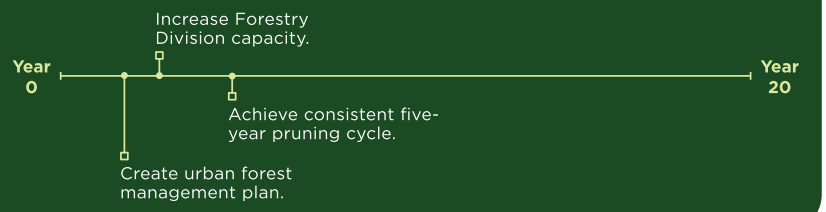
Metrics:

- Proportion of public trees pruned each year.
- Per-tree maintenance expenditures.
- Value of tree benefits.
- Expenditures on emergency response.
- Number of public requests.
- Number and credentials of Forestry staff.
- Annual Forestry budget, Forestry allocations, and supplemental funding.

Success Looks Like:

- A sustained five-year routine pruning cycle.
- An increase in the proportion of mature trees.
- Reduced expenditures for emergency and storm response.
- Growth in tree canopy benefits over time.
- Land use incentives prioritize tree benefits and tree canopy equity for the people of Fort Collins.
- Proactive climate adaptation strategies for long-term tree survivability.

Implementation Timeline



3. STRENGTHEN CITY POLICIES TO PROTECT TREES.

Timeframe: 5 years.

Next Steps: Begin public outreach about private tree protection, create tip sheets about existing policies.

Resources: City Council, peer cities.

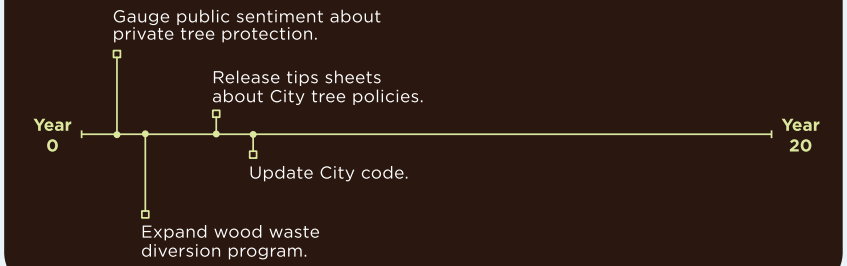
Metrics:

- Tree canopy cover by land use.
- Volume of diverted wood waste.
- Number of participants in community outreach activities.
- Gallons of outdoor water consumption.

Success Looks Like:

- An increase in net canopy growth on private property.
- A public register of Fort Collins' heritage trees.
- Expansion of the wood reutilization network.
- Updated city code that reflects urban forestry best management practices and industry standards.
- Best management practices for sustainable and water-efficient landscapes.

Implementation Timeline



4. COLLECT DATA TO TRACK CHANGES TO TREE CANOPY OVER TIME AND TO INFORM FORESTRY ACTIVITIES.

Timeframe: Every 2–5 years.

Next Steps: Expand the attributes that are collected within the public tree inventory; plan for an updated urban tree canopy assessment.

Resources: Urban Forest Ambassadors, GIS specialists, ISA Certified Arborists, consultants

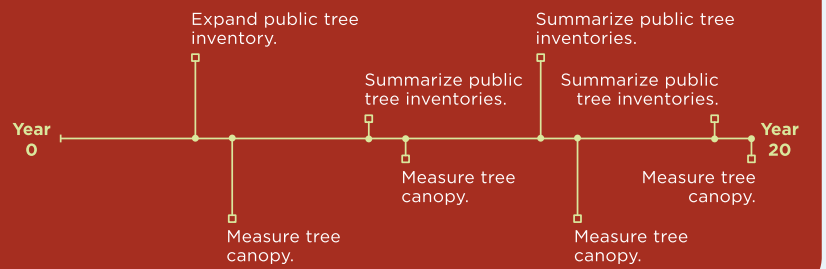
Metrics:

- Up-to-date tree canopy studies and data.
- Expanded public tree inventory attributes, including risk and irrigation status.

Success Looks Like:

- Management and budgeting decisions are grounded in up-to-date information about public trees and citywide tree canopy.
- Forestry activities are related to City Outcome Areas and other community goals.

Implementation Timeline



5. SUSTAINABLY RESOURCE THE FORESTRY DIVISION TO KEEP PACE WITH GROWTH OF THE URBAN FOREST.

Timeframe: 5–10 years.

Next Steps: Increase tracking of resident requests and annual reporting of tree activities.

Resources: City Council, Parks Department, Forestry Division staff.

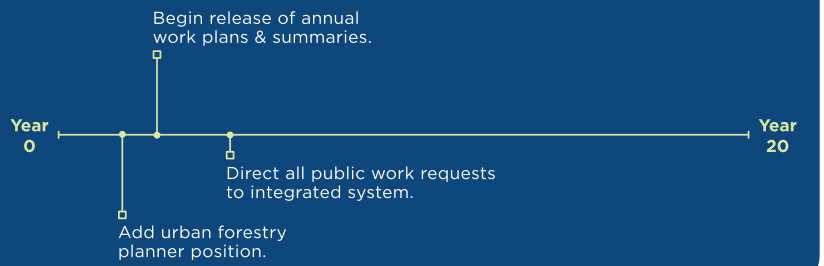
Metrics:

- Grant awards received.
- Annual work plans.
- Annual tree activities by type.
- Budget requests & expenditures, by category.
- Number and tracking of public work requests.
- Number and credentials of Forestry Division staff.
- Number of missed work days due to injury.

Success Looks Like:

- Improved internal tracking on public requests and tree activities.
- Increased public understanding and support of Forestry Division activities and budget.
- Consistent, measured biannual budget increases.
- Planned, sufficient growth of Division staffing and resources.
- Successful grant requests.
- A sustainable work environment that prioritizes employee health and wellbeing inside and outside of the workplace.

Implementation Timeline



6. DEEPEN ENGAGEMENT WITH THE COMMUNITY ABOUT TREE STEWARDSHIP.

Timeframe: 5–7 years.

Next Steps: Increase community engagement about tree care; expand Forestry participation in other City departments' planning efforts.

Resources: Urban Forest Ambassadors, Planning and Development Services.

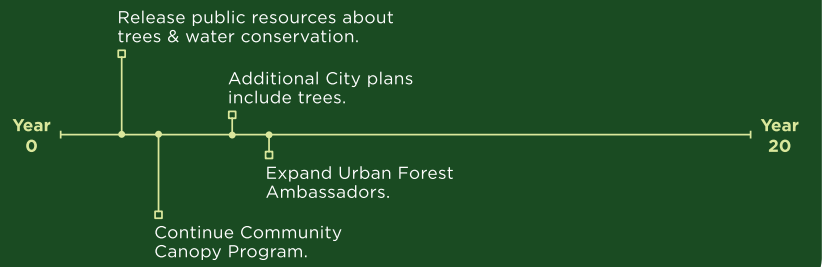
Metrics:

- Number of Urban Forest Ambassadors.
- Accessible tip sheets and written resources.
- Public participation.
- City plans that integrate trees.
- Resources provided to the public for tree planting and care.
- Tree ordinances and code updates.
- Forestry staff public appearances, media coverage, web/social media impressions.

Success Looks Like:

- Growth in the number of volunteers
- An increase in the volume of wood waste that is diverted from landfills.
- Increased net growth of tree canopy on private land.
- Incorporation of trees in other City plans and initiatives, prioritizing urban heat and equitable distribution of canopy.
- Expanded funding for tree planting and stewardship on private land.

Implementation Timeline



7. EXPAND THE NETWORK OF FORESTRY DIVISION PARTNERS.

Timeframe: 3–5 years.

Next Steps: Form a committee to guide implementation of the Urban Forest Strategic Plan.

Resources: Colorado Tree Coalition, Front Range Urban Forestry Council, other regional groups.

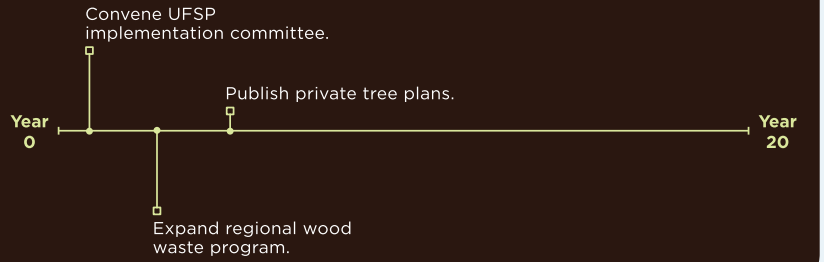
Metrics:

- Number of regionally sourced trees.
- Number of Forestry staff involved in regional groups/ discussions.
- Institutional/large campus tree plans.
- Regional resources.

Success Looks Like:

- Increase in locally sourced trees.
- An increase in the number of staff who participate in partner activities.
- Equitable tree plans that are developed by institutions.
- An increase in regional resources about trees.

Implementation Timeline



6 SELECTED REFERENCES & GLOSSARY

Selected References

Complete references can be found in the Fort Collins Urban Forest Strategic Plan Technical Appendix.

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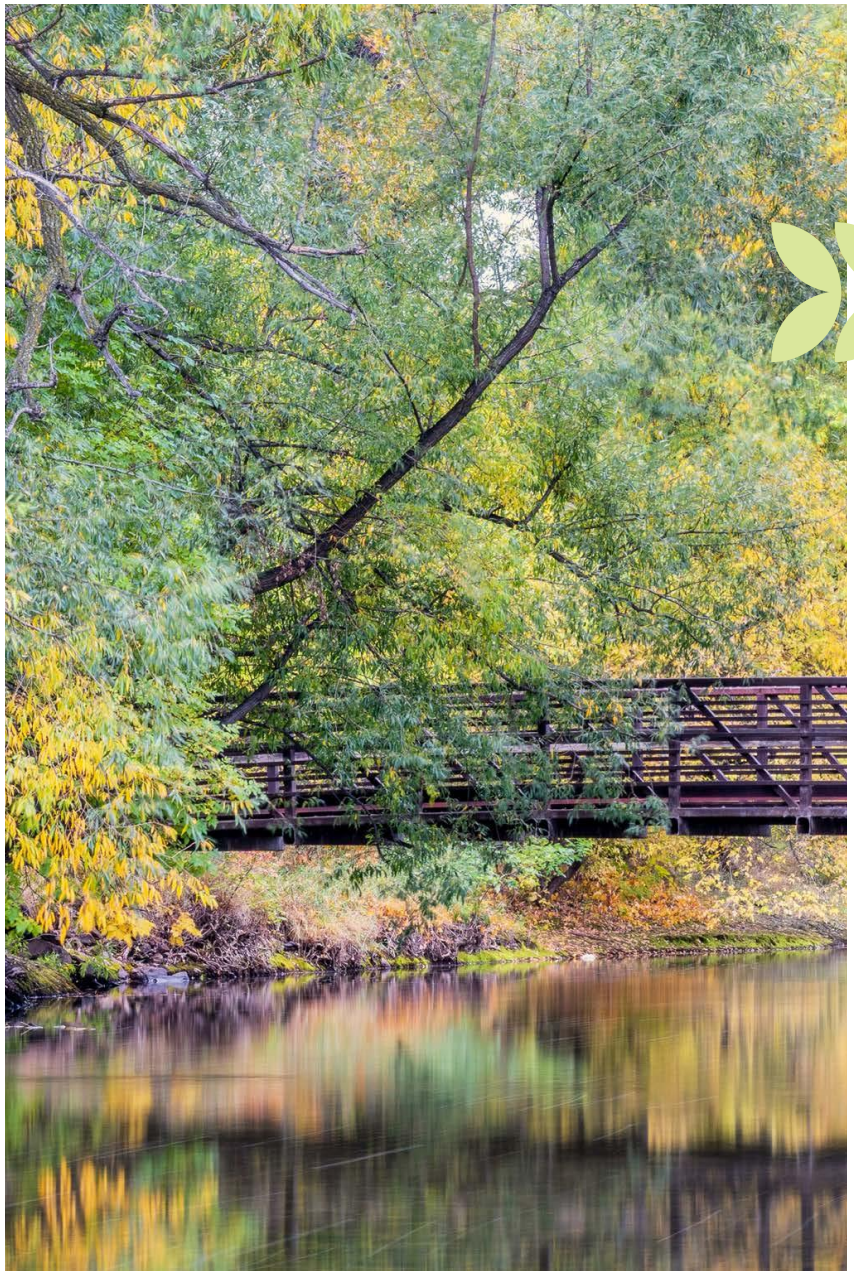

Glossary

Biodiversity: The variety of life that is found in a habitat or ecosystem.

Block Group: Federally defined geographic areas that are variable in size and typically contain between 600–3,000 residents.

Carbon Sequestration: The removal of carbon from the atmosphere to be stored within tree tissues.

Conservation: The careful preservation and protection of a resource, such as water or natural areas.

Ecosystem Services: The collection of social, environmental, and economic benefits that ecosystems provide to communities.

Environmental Justice: The just treatment and meaningful participation of all people to mitigate inequities and harms in the environment.

Equity: Equal access within a community to the same benefits, opportunities, and outcomes, factoring in systemic inequalities.

Genus (plural, genera): A grouping of closely related species.

Geographic Information Systems (GIS): Technology that is used to capture, store, manipulate, analyze, and display geographic data.

Growth Management Area: The area outside Fort Collins' city limits that delineates the possible future extent of city boundaries.

Habitat: The sum of the physical, chemical, and biological environment occupied by a particular species, population, or community.

Land Use: Describes the human use of land for cultural and economic purposes.

Possible Planting Area: An area of land where it is possible to plant trees; excludes places where tree canopy would conflict with existing land uses.

Priority Planting Analysis: A process to rank possible tree planting area based on the potential for trees to benefit the environment, human health, and social equity.

Resilience: The ability to withstand and recover from stressors such as pests, diseases, and drought.

Social Equity: The fair, just, and equitable management of resources and institutions that serve the community.

Stewardship: The responsible care and management of a resource.

Stormwater Runoff: Surface water that is not absorbed after a rainstorm or snow melt that flows into local waterways.

Tree: A woody plant that reaches a height of 15 feet or more at maturity.

Tree Benefit: A service that trees provide that improves the environment for people, plants, and wildlife.

Tree Canopy: The upper layer of foliage and branches of trees as seen from above.

Tree Canopy Change: A measure of how tree canopy cover differs from one point in time to another, expressed in acres and/or as a percentage.

Tree Canopy Cover: The amount of land that is covered by tree canopy as seen from above, expressed as a percentage of the total land area.

Urban Forest: The collection of trees growing along streets, in public parks and natural areas, and in the yards of homes, schools, and businesses.

Urban Heat Island: Urban areas that experience higher temperatures than nearby rural areas due to buildings and paved surfaces that trap and hold heat.

Vulnerability: Being able to be damaged or harmed.