

AUSTIN'S URBAN FOREST PLAN



Report to Urban Forestry Board

06-19-13

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AUSTIN'S URBAN FOREST PLAN

Timeline

1992 - 2011

1992 | City Code mandates the creation of a Comprehensive Urban Forest Plan for Austin.

1992-2011 | Several attempts were made to complete the Comprehensive Urban Forest Plan (CUFP). None result in a final product

February 2011 | Urban Forestry Board (UFB) Meeting

→ Motion passed to “extend period of time for a working group of the Board to work on the plan”

June 2011 | UFB Meeting

→ Motion passed to “Schedule a retreat for Board Members to discuss the UFB Strategic and Comprehensive Plan

October 2011 | UFB Meeting

→ UFB Working Group update to Urban Forestry Board

November 2011 | Staff Brainstorming Session

→ Brainstorming session held for staff from several different City of Austin departments and facilitated by professional City of Austin moderators.

December 2011 | Two meetings of the Comprehensive Urban Forestry Board (UFB) Working Group

- Review of an initial outline developed by staff. Revisions made on working group consensus.
- Further revisions to draft outline on working group consensus
- CUFP Working Group formed by UFB



2012

January 2012 | CUFP UFB Working Group Meeting and Annual Urban Forestry Board Retreat

- Outline prepared for the Retreat where it was commented on by the full Urban Forestry Board and staff.
 - UFB members and staff participate in 8-hour brainstorming session to characterize ideal urban forest, then challenges and threats in reaching that goal. The Board also further revised the definitions of the Visions Components and Guiding Principles
-

April 2012 | Public Meeting

- The public was invited to review and comment on CUFP Vision Statement, Components, and Guiding Principles. Urban Forest Opinion Poll conducted—900 responses generated
-

June 2012 | Two CUFP UFB Working Group Meeting and regular monthly UFB meeting

- Progress reviewed to date. Consensus reached: 1) adequate public input has been gathered on the outline; 2) 1st draft should be produced by staff.
 - The Urban Forestry Board unanimously approves all content to date.
 - UFB working group reviews first draft of the plan, provides revisions. Tasks for each member are assigned. Working Group adds a section including “policy elements” that support Vision Statements
-

November 2012 | City of Austin Staff Support Added to CUFP Initiative

- Staff capacity increased for CUFP development
 - Plan outline organized into sections
 - Revised Plan timeline developed
 - CUFP Project Manager (PM) met with PARD PIO and received approval to approach Corporate PIO for assistance with public engagement
-

December 2012 | Two CUFP UFB Working Group Meetings and UFB regular monthly meeting

- Using the Urban Forestry Board’s Retreat results as the ground work for this collaborative process, the working group crafted priority challenges for each of the six vision categories.
- Urban Forestry Board meeting – Dec 19. Review of progress to date.



2013

January 2013 | UFB Working Group

- UFB Working Group reviewed Policy Elements
-

February 2013 | Project Management & Engagement Planning

- PM met with UFB chair for planning meeting
 - PM and Urban Forester met with COA Corporate Public Information Office (CPIO) to discuss engagement strategy. It was determined that an 'urban forest' education component was needed as an initial step to the engagement.
 - PM and Urban Forester had a follow up meeting with CPIO to discuss education campaign
 - Temporary staff added to assist with the State of the Urban Forest plan component
-

March 2013 | Policy Elements, Internal Engagement

- 2nd UFB Working Group met to review Policy Elements
 - Engage internal COA stakeholders – 1st meeting
-

April 2013 | Engagement/Education, State of the Urban Forest

- UFB Working Group to develop engagement strategy prioritization
 - CPIO and Urban Forestry work with internal stakeholders to develop education campaign
 - Internal working group created for State of the Urban Forest data/GIS
-

May 2013 | Engagement/Education, State of the Urban Forest, Departmental Operational Plan

- Staff met with Corporate Public Information Office (CPIO) to discuss marketing/education and engagement strategies
 - UFB Working Group met with Corporate Public Information Office (CPIO) on marketing/education and engagement strategies
-

June 2013 | Engagement/Education, State of the Urban Forest, Departmental Operational Plan

- UFB Working Group meets on CUFPP timeline/engagement strategy/review Plan progress
- Staff met with Corporate Public Information Office (CPIO) to discuss marketing/education and engagement strategies
- Interdepartmental Working Group Convened – Policy Elements



2013 continued...

July 2013 | Engagement/Education, State of the Urban Forest, Departmental Operational Plan

- UFB Working Group meets on CUFPP timeline, review Plan
 - Public education/engagement kick-off
 - Interdepartmental Working Group works on parts of the plan as needed/review and comment
 - Internal State of the Urban forest working group submits Final work product to Urban Forestry Board for approval
-

August 2013 | Boards and Commissions

- Plan to be presented to Environmental Board and Parks and Recreation Board for review and recommendations per City Code § 6-3-5 (B)
-

September 2013 | Plan to City Council

- Comments from Boards Incorporated and Plan prepared for Council
-

October 2013 | Plan to City Council

- Final plan presented to City Council
-

November 2013 | UFB Working Group Implementation

- UFBWG and Staff begin implementation process



AUSTIN'S URBAN FOREST PLAN

About Austin's Urban Forest Plan

What is Austin's Urban Forest Plan?

Our Urban Forest Plan is the Comprehensive Urban Forest Plan mandated by Austin City Code in 1992. A healthy urban forest supports the City's vision to be the most livable and best managed city.

Scope of the Plan

The comprehensive plan includes trees and vegetation on public property.

City of Austin Code of Ordinances

§ 6-3-5 COMPREHENSIVE URBAN FOREST PLAN.

- (A) With the assistance of the urban forester, the board shall develop and revise the plan.
- (B) The Environmental Board and Parks and Recreation Board shall review the plan and make recommendations to the board.
- (C) The urban forester shall provide administrative staff services to the board in connection with the plan.

THE GOAL of the Comprehensive Urban Forest Plan is to establish a broad-scoped, long range vision for Austin's urban forest. It will provide a framework for City departments to use as a guide for managing their urban forest resources, in the form of Departmental Operational Plans, and will include a roadmap for implementation to reach that comprehensive vision. The end result will be a plan which identifies positive aspects, responsibilities, and innovations, but serves also as a model to the City's neighboring communities, regional property owner, and the global community.

THE IMAGINE AUSTIN COMPREHENSIVE PLAN contains sixty-nine mentions of urban forestry related items, including twenty Priority Actions. The impacts of continued growth and development, combined with long term drought conditions create an imperative to develop Imagine Austin's Green Infrastructure Priority Program, the Comprehensive Urban Forest Plan and subsequent Departmental Operational Plans.



AUSTIN'S URBAN FOREST PLAN

Vision and Guiding Principles

Austin's Urban Forest Plan Vision Statement & Components

Austin's urban forest is a healthy and sustainable mix of trees, vegetation, and other components that comprise a contiguous and thriving ecosystem valued, protected, and cared for by the City and all of its citizens as an essential environmental, economic, and community asset.

SIX VISION COMPONENTS

- 1) **Thriving**: A thriving urban forest is one that is optimized according to site and ecosystem capacity.
- 2) **Contiguous**: A contiguous urban forest is composed of interconnected, forested corridors for transportation, community, recreation and wildlife throughout the city.
- 3) **Healthy Ecosystem**: A healthy urban forest is comprised of a diverse, native and uneven-aged palate of species adapted to the unique growing conditions of ecosystem types.
- 4) **Valued**: A valued urban forest is recognized as an asset that is essential to the well-being of the community and the ecosystem.
- 5) **Protected**: Trees are protected through sustainable site design and land management practices so that long-term ecosystem health is maintained.
- 6) **Cared For**: A well cared for urban forest is proactively managed for health, longevity and safety.

GUIDING PRINCIPLES

The guiding principles were established during the initial phase of the plan's development. The principles apply to all areas of the plan and its development.

SIX GUIDING PRINCIPLES

- 1) Greatest Good Philosophy
- 2) Wise Use of Resources
- 3) Sustainable
- 4) Science-Based Decision Making
- 5) Public Safety
- 6) Industry Recognized Best Management Practices



AUSTIN'S URBAN FOREST PLAN

Tree Be-leafs: An Urban Forest Opinion Poll | April 2012

On April 4th, 2012 the Urban Forestry Program initiated a 19-day online survey. 880 people participated in the survey. The majority of participants were female (60%), college educated (83%), and reside within Travis County. Participants were aware of the urban forest however awareness of the Urban Forestry Board was split almost 50/50 suggesting more public engagement is needed to inform the public of City resources regarding urban forestry.

The survey itself contained 42 questions taking approximately 15 minutes for survey takers to complete. The survey was designed to capture a snapshot of the public's perception of Austin's urban forest and asked specifics pertaining to tree values, benefits, problems, risks, threats, maintenance, watering, and protection as well as canopy distribution and land management. The following outlines a few major takeaways from the survey.

Top 5 Survey Takeaways

1. **Respondents identify a wide array of benefits and values of Austin's urban forest:** These benefits include shade for outdoor activities, environmental benefits, and aesthetics/beautification, attraction of wildlife, and shade.
2. **Respondents recognize trees as valuable assets at a cost:** People strongly disagree that trees cost too much and that trees make it difficult to detect crime. Conversely, issues with infrastructure (i.e. trees falling on power lines and roots cracking sidewalks) received strongest agreement regarding urban forest issues.
3. **Human threats > natural threats:** Citizens consider human-created threats (i.e. land development) to the urban forest to be more eminent over naturally-created threats (i.e. wildfires).
4. **Unequal canopy distribution:** Most respondents believe tree canopy is not equally distributed across Austin with tree stewardship, socioeconomic factors, unequal distribution of parkland, and land use being the most significant reasons for unequal tree canopy according to respondents.
5. **Our public right-of-way trees need a better image:** Regarding the overall condition of trees, trees in natural areas, parks, trails, and creeks/streams are generally viewed as being in fair to very good condition, whereas trees in public transportation facilities, along arterial streets, and within the central business district are viewed as being in very poor to poor condition.



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Engagement Strategy Overview & Process Proposal

To date it has been established that the engagement strategy should include three parts.

- 1) Education Campaign – What is Austin's urban forest?
- 2) External engagement process
- 3) Internal engagement process

Scope of the Plan

This is a comprehensive plan for all trees and vegetation on public property.

Objective of Public Engagement

The vision for Austin's Urban Forest will be used by the Urban Forestry Board (UFB) and Urban Forester as the foundation for discussing challenges and assets associated with the community and the City to help realize goals aided by public funds, resources and public policy.

Urban Forestry Board Working Group (UFBWG) Developed Broad Questions

- 1) What's standing in the way of our achieving this vision?
- 2) What assets as a community and as a city do we have to help us realizing this vision?
- 3) What role does the general public play in carrying out this vision?
- 4) How should the City, using staff, public resources, and public policy, help make this vision a reality?
- 5) Prioritization of City's actions and role in support of vision.

Mobile Engagement Strategy Brainstorming with Staff

The group worked on streamlining the four broad questions created during the 05-08-13 UFBWG into one or two direct 'asks' that could be translated into a mobile engagement activity.

- 1) Why do trees matter to you?
- 2) The 'ask' will provide direction on what we all should do reach the Vision.

Considerations at brainstorming:

- Pie chart tree poster with spinner
- Tree Tags with value of tree based
- Black board tree with an 'ask' and fill in the blank spaces
- Tree image with an 'ask' and leaf sticky notes for people to fill out.
- Drive to web for next level of engagement



Education & Engagement Process Outline

Community engagement focused on the support of the urban forest vision.

TEAM	<ul style="list-style-type: none"> • Urban Forestry Board – Project Sponsor • Angela Hanson, Urban Forester – Project Sponsor • Leah Haynie, Urban Forestry – Project Coordinator • Larry Schooler, CPIO – Engagement Lead • John Nixon, CPIO – Communications Lead • Ian Graham - CPIO Designer
DELIVERABLES	<p>Logo – 1st Week of June (June 3rd) - Ian Graham, CPIO Designer</p> <p>Marketing/Education</p> <ul style="list-style-type: none"> → “My Urban Forest _____.” → Webpage featuring people’s stories. → Bus wrap? Other ideas?? → Media Push (John Nixon) <p>Collateral</p> <ul style="list-style-type: none"> → Hand Out with basic info and drive to web <p>Webpage resource – 2nd Week of June (June 10th)</p> <ul style="list-style-type: none"> → Leah Haynie and Ksenia Zemlyanova, CPIO Web → PARD or Imagine Austin placement → Examining external partnerships for Events Level webpage <p>Online engagement strategy/tool(s) – 3rd Week of June (June 17th)</p> <ul style="list-style-type: none"> → Larry Schooler → Content – Urban Forestry Board (See 05-08-13 Meeting notes) <p>Mobile Engagement Strategy - 3rd Week of June (June 17th)</p> <ul style="list-style-type: none"> → Larry Schooler → Location Coordination – Cheyenne Krause → Poster – Ian Graham <p>Engagement Event – 2nd Week of July (July 8th)</p> <ul style="list-style-type: none"> → Co-design/Coordination <p>Ongoing engagement opportunities</p> <ul style="list-style-type: none"> → 311 Short Survey → Website and Speak Up Austin <p>FUTURE NEEDS</p> <ul style="list-style-type: none"> → Presentation to department heads → Presentation to Boards and Commissions → Graphic design of plan



Engagement Strategy Options | Draft

<p>PHASE 1: Options</p>	<p>Speak Week – Mid-June</p> <ul style="list-style-type: none"> → Mobile Engagement – Early July <ul style="list-style-type: none"> ▪ Leaf the Tree Activity (pg 7) ▪ Audience target locations, 2 Hr shifts, quick ask <ul style="list-style-type: none"> • "What should be done for the trees and vegetation in our public spaces, our 'urban forest'?" • Barton Springs, Lamar/Pflugler/Mopac bridges, City Hall Plaza, other local events north, south, east and west Austin ▪ Poster - Larry Schooler/CPIO Designer <p>Presentations to Boards & Commissions - July</p>
<p>PHASE 2: Options</p>	<p>Summit/Workshop – Mid July (<i>July 21st</i>)</p> <ul style="list-style-type: none"> → Invite 1 to 2 participants from each identified stakeholder group, pre-sort groups for topical diversity (nametags) → Break out in to small groups of 8 or so with facilitators, use Dot voting and/or 'buckets' to apportion resources <p>Open House – Mid July (<i>Friday/Saturday after Summit?</i>)</p> <ul style="list-style-type: none"> → Informal face to face time with the community
<p>TECHNOLOGY</p>	<p>Web Resource – Early June</p> <ul style="list-style-type: none"> → 2 Pages requested <p>SpeakUp Austin</p> <ul style="list-style-type: none"> → Moderated discussion (asynchronous), Post ideas/forum/voting, Surveys <p>MetroQuest</p> <ul style="list-style-type: none"> → Allows easy prioritization interface, and allows allocation exercise <p>Social Media – FB & Twitter</p> <ul style="list-style-type: none"> → Notification, drive to web <p>Televised interactive event with Call In/Out Service</p> <p>311 Script</p>



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Leaf The Tree Mobile Engagement Activity

A mobile engagement activity is a short 2 hour targeted activity that can be moved to different locations easily to access a broad spectrum of stakeholders.

The Goal of this type of mobile engagement activity is to:

- 1) Seek feedback on what the City should do, what individuals should do, what various other stakeholders should do to support the urban forest vision;
- 2) Assist with prioritization of community resources;
- 3) Engage citizens in the topic of urban forestry, and the planning process

The 'Ask'

"What should be done for the trees and vegetation in our public spaces?"

The Activity Concept

Use the 'ask' to engage community members at various locations around town during Speak Week.

- Use a tabletop 2D or 3D image of a tree with the 'ask' prominently displayed on the board.
- Provide leaf shaped sticky notes and pens and invite people to write on their response on their leaves and place them on the tree.
- On site facilitators will remove and process the notes once the tree has been fully leafed through Excel and submitted to the engagement program coordinator.

Locations and Schedule

- Locations around town to be determined.
 - Barton Springs Pool, Lamar and Mopac Bridge, City Hall Plaza, east, west, north, and south side locations with foot traffic, farmers markets, etc...
- Schedule to be determined. During Speak Week (early July)

Needs

- Poster needs to be designed and produced
- Staffing of activity station and processing of information needed

Austin's Urban Forest
What should be done for the trees and vegetation in our public spaces?





AUSTIN'S URBAN FOREST PLAN

Comprehensive Urban Forest Plan Public Engagement | Policy Element Activity | DRAFT

Public Engagement Activity – Prioritize City Policy

- Activity Objective:** The City wants to know from Austin residents which City policies are most critical and should be focused on first.
- Activity Outcome:** Ranking of Comprehensive Urban Forest Plan policy element categories based on community input. Policy element categories will appear in the Plan in order of highest ranking and will communicate to the City which should receive the most focus.
- Activity Details:**
1. Participants of the CUFPP summit will be given three “votes” for the policy element categories which they feel are most critical for Austin’s urban forest. Participants may use their votes in any way, including three votes for only one of the categories.
 2. Participants will vote by placing a colored sticker next to the policy element category/categories which they feel is/are most critical.
 3. Policy element categories will be ranked based on which receive the most votes overall from all participants.

Policy Element Categories (in no particular order)

URBAN FOREST MANAGEMENT FRAMEWORK – Policies related to City organizational structure and staffing levels for urban forestry, urban forestry staff qualifications, involvement of urban forestry staff in other City disciplines and functions, and funding for urban forestry.

EDUCATION AND OUTREACH POLICIES – Policies related to public education, outreach, stewardship, and training of residents and businesses, as well as incentives for urban forest promotion

PRESERVATION POLICIES – Policies related to responsible urban forest preservation via regulatory modifications, flexibility in City requirements for infrastructure improvements, modifications of City fees, and other approaches.

PLANTING, CARE AND MAINTENANCE POLICIES – Policies related to the quality and quantity of tree plantings, tree care, and tree maintenance.

PLANNING AND DESIGN POLICIES – Policies related to the incorporation of existing urban forest resources and planning for sustainable future urban forest resources on a site level scale.

SUSTAINABLE URBAN FOREST POLICIES – Policies sustainability of the urban forest resource itself, as well as the sustainability of the resources related to its management, such as water. Sustainable practices contribute to a sustainable urban forest.



Policy Elements Activity | Description

Comprehensive Urban Forest Plan Public Engagement Summit / Prioritize City Policy	
Total Time	The Set Up
Explanation: 10 minutes	→ Each Policy Element Category will be posted on a wall on separate sheets of paper
Activity: 20 minutes	→ Materials: 7 sheets of paper, 500 dot stickers
Wrap-up: 5 minutes	→ Facilitator: TBD

June

<i>Sun</i>	<i>Mon</i>	<i>Tue</i>	<i>Wed</i>	<i>Thu</i>	<i>Fri</i>	<i>Sat</i>
						1
2	3	4	5 CUFP Marketing Meeting	6 CUFP Engagement Meeting	7	8
9	10	11	12	13	14 Submit Back Up for UFB Meeting	15
16	17	18	19 Internal CUFP Meeting ----- Urban Forestry Board Meeting	20	21	22
23	24	25 Parks & Rec Board	26	27	28	29
30						15

2013

July

<i>Sun</i>	<i>Mon</i>	<i>Tue</i>	<i>Wed</i>	<i>Thu</i>	<i>Fri</i>	<i>Sat</i>
	1	2	3 Environmental Board 6:00	4	5	6
7	8	9	10	11	12	13
14	15	16	17 Environmental Board 6:00 <hr/> Urban Forestry Board Meeting	18	19	20 CUFP Open House?
21	22 CUFP Summit?	23	24	25	26	27
28	29	30 Parks & Rec Board	31			

August

<i>Sun</i>	<i>Mon</i>	<i>Tue</i>	<i>Wed</i>	<i>Thu</i>	<i>Fri</i>	<i>Sat</i>
				1	2	3
4	5	6	7 Environmental Board 6:00	8	9	10
11	12	13	14	15	16	17
18	19	20	21 Environmental Board 6:00 <hr/> Urban Forestry Board Meeting	22	23	24
25	26	27 Parks & Rec Board	28	29	30	31

17

2013

September

<i>Sun</i>	<i>Mon</i>	<i>Tue</i>	<i>Wed</i>	<i>Thu</i>	<i>Fri</i>	<i>Sat</i>
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17 Plan due to Council contact for Oct 24 th Agenda Placement	18	19	20	21
22	23	24	25	26	27	28
29	30					

October

Sun

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Comprehensive
Urban Forest Plan
Goes to Council

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2013



AUSTIN'S URBAN FOREST PLAN

Naming the Plan | Work to Date | June 2013

The Urban Forestry Board Working Group requested that CPIO create a name for the Plan to make it more accessible to the public. Based on a meeting with CPIO, the UFB chair, and staff contributions the following was produced for consideration.

The following words, concepts, and names were a collaborative effort by many including the UFB Working Group, the City's Corporate Public Information Office, tree geeks, and one office assistant.

WORDS OF OUR URBAN FOREST

Connected	Long-term	Culture
Branching	Legacy	Future
Roots	Community	Progress
Alive	Benefits	Viability
Cool	Breathing	Fortitude
Urban	Filtering	Forecast
Thriving	Heritage	Future
Growing	Heirloom	Guide
Green	Grow	Clean air, water
Shade	Nurture	Breathing
Canopy	Cultivate	Fresh
Diverse	Guidance/Guide	Healthy Soils
Safety	Leaf	Sustain
Regeneration	Beauty	Clean
Reforestation	Ecosystem services	Cooler
Deforestation	Living Infrastructure	



CONCEPTS RELATED TO YOUR URBAN FOREST

Trees are a part of my community.
Austin wouldn't be Austin without trees.
I want to get around town on tree shaded streets.
Austin's growing but trees keep our city grounded and livable.
My urban forest is worth investing resources in.

Trees are our oldest citizens
Trees work 24 hours per day
The urban forest provides functional benefits
The urban forest is an indicator of how well its citizens cares about the future
The urban forest is for the long term

CONCEPTS RELATED TO THE PLAN

Comprehensive
Touches every other plan
Foundational
Guidance for city staff
Beyond this decade
Initial plan
Brings disconnected elements together
Yields multiple benefits
Saves money via efficiencies
Trees have value and also provide benefits.

Trees provide food, shelter, and habitat.
An urban forest is made up of more than just trees.
How does the community value its' trees?
Is the value placed on the urban forest by the community reflected in the urban forest itself?
Many of these trees will be in the same place doing the same thing when I have turned to dust.

Other names for trees:

Organic Air Conditioner
Air Purification Agent
Carbon Sequestration Device
Electric Bill Savings Apparatus
Natural Hydrological Decelerator and Filtration Mechanism

Water Quality Improvement Machine
Revenue and Profit Generator
Thermal Radiation Modulator
Alternative Transportation Provocation Provision
Structural Biological Habitat Foundational Element



COLLECTION OF POTENTIAL NAMES

CityForest	Austin TREES (could use the word as acronym for some of the benefits...I think each letter would correspond to a benefit)	Your Forest
GrowAustin		OurForest
ThinkTrees		Your Community forest
Austin's Urban Forest	Cooler Austin	Your urban forest
Roots & Trunks	CoolAustin	Austin Canopy
Roots & Limbs	Keep Austin Cool	ForestedAustin
Austin's Cover	Keep Austin Shaded	Trees Alive
Cover me Green	Keep Austin's Trees	Forever Trees
Trees and Beyond	GreenAustin	Leafing Austin
Beyond the Branches	CommunityForest	Roots Alive



AUSTIN'S URBAN FOREST PLAN

January 2012 Outline & Notes

VISION

Austin's urban forest is a healthy and sustainable mix of trees, vegetation, and other components that comprise a contiguous and thriving ecosystem valued, protected, and cared for by the City and all of its citizens as an essential environmental, economic, and community asset.

OUTLINE

1. Vision Statement
2. Executive Summary
3. Guiding Principles in order (values to be considered at each level)
 - a. Greatest Good Philosophy
 - b. Wise Use of Resources
 - c. Sustainable
 - d. Science-Based Decision Making
 - e. Public Safety
 - f. Industry Recognized Best Management Practices
4. Define the Resource
 - a. Ecosystem
 - i. Sample Inventory
 - ii. STRATUM
 - iii. Canopy Coverage Analysis
 1. Texas State University - Street Tree Shade Index
 2. Ramos' Park Canopy Coverage Analysis
 - iv. Workorder Analysis (Frequency of Care, etc)
 - b. Human Resource
 - i. Staff
 - ii. Partnerships
 1. Internal
 2. External
 - iii. Citizens
 1. Stewards
 2. Advocates
 3. Volunteers
 - c. Infrastructure
 - i. Equipment
 - ii. Irrigation
5. Recommendations
 - a. Six Vision Components
 - i. Thriving
 1. Goal
 - a. Opportunities, Challenges and Threats
 - b. Performance Measures



- i. Implementation Schedule
 - ii. Responsible Entities
 - c. Identification of Resources and Unmet Needs
 - i. Funding
 - ii. Staff
 - ii. Contiguous
 - iii. Healthy
 - iv. Valued
 - v. Protected
 - vi. Cared for
 - b. Summary of Recommendations
 - i. Budget
 - ii. Timeline
 - iii. Revision Schedule
- 6. Supporting Documents and Appendices
 - a. Regulation
 - i. City Code Chapter 6 – Trees and Vegetation
 - ii. City Code Chapter 25 – Trees and Development
 - iii. Endangered Species Act
 - iv. TDA Pesticide Application Rules
 - v. Federal Law for Utility Line Clearance
 - b. Policy
 - i. Environmental Criteria Manual
 - ii. Transportation Criteria Manual
 - iii. Oak Wilt
 - iv. Urban Design Standards
 - v. Great Streets
 - c. Professional Standards
 - i. ANSI Z133 Safety Standards
 - ii. ANSI A300 Tree Care
 - iii. ANSI Z60.1 Nursery Stock
 - d. Standard Operating Procedures
 - i. Safety
 - ii. Inspections
 - iii. Operations and Administration
 - iv. GIS and GPS units
 - e. Organizational Structure
 - i. Urban Forestry Program
 - ii. Other Programs
 - f. Supporting Plans
 - i. Climate Protection Plan
 - ii. Invasive Species Management Plan
 - iii. Imagine Austin Comprehensive Plan
 - iv. Balcones Canyonlands Preserve Plan
 - v. Integrated Pest Management Plan
 - g. Models
 - i. Milwaukee's Organizational Structure and Nursery



- ii. Minneapolis' Funding Mechanism
 - iii. San Francisco Forestry Inventory
7. Glossary of Terms
- a. Uneven-aged
 - b. 'Green' Infrastructure

Content of #5 Recommendations taken from the outline above

12-19-11 The UFB Management Plan Working Group reached consensus that the seven vision components comprise the framework of this section of the plan and directed staff to proceed with the next level.

Staff went forward and inserted the specific comments from board members April Rose, Tom Hayes and Nick Classen from the Google Doc into one of the seven vision components below into the 'Raw Material' heading. The results of the staff brainstorming session were also applied in this way. The intent of this action was to create a body of work, none of which staff is 'married to', that the board may start from and edit and revise.

A definition was created from the 'Raw Material' to explain what for example a 'Thriving Urban Forest' actually means.

Also, an example of how a Goal (used to strive toward one of the seven vision components) is broken down under the vision component 'Thriving' and includes Challenges and Threats, Performance Measure and Identification of necessary resources.

01-09-12 The UFB Management Plan Working Group reached consensus on the above outline in its entirety including prioritizing the Guiding Principles as written here. They also made several changes to the content of #5 Recommendations including going from seven vision components down to six – 'Sustainable' is now a guiding principle. They refined the definitions of the Six Vision Components in preparation for the Retreat and decided that participants at the Retreat should focus on identifying Goals which strive towards each Vision Component, followed by Opportunities, Challenges and Threats to each Goal and finally an exercise to prioritize those Goals under each Vision Component. It was decided that 'Performance Measures' and 'Identification of Resources and Unmet Needs' should not be the focus of this initial retreat. The 'Raw Material' heading under each of the six Vision Components is now titled 'Ideas'. The vision statement was changed from '...sustainable mix of trees that comprises...' to '...sustainable mix of trees, vegetation, and other components that comprise...'

01-21-12 The UFB held its annual Retreat. The first 4 hours were spent on the annual business plan outlining the goals of the Board for the year. The last 8 hours were spent on reviewing the Vision Statement and definitions of the six Vision Components, as well as brainstorming ideas that flowed from about 30-45 minutes spent on each. Revisions to the six Vision Components definitions are reflected below.



5) Recommendations

a) Six Vision Components

i. **Thriving (quantity of canopy)**

Definition: A thriving urban forest is one that is optimized according to site and ecosystem capacity.

Ideas: High stocking rate. Intelligent canopy coverage rates based on ecosystem type.

1. Goal: More trees are planted than are lost resulting in a net gain.

a. Opportunities, Challenges and Threats:

- i. Development
- ii. Drought
- iii. Growing space above and below ground

b. Performance Measures

- i. Implementation
- ii. Responsible Entities

c. Identification of resources and unmet needs

- i. Funding
- ii. Staff

ii. **Contiguous Ecosystem**

Definition: A contiguous urban forest is composed of interconnected, vegetated corridors that foster community benefit, multi-modal transportation, and native flora and fauna throughout the city.

Ideas: Connectivity. Equitable distribution. Transportation corridors are shaded. Community is connected to commerce and services.

iii. **Healthy Ecosystem (quality of canopy)**

Definition: A healthy urban forest is comprised of a diverse, native and uneven-aged palette of species and structure adapted to the unique growing conditions of ecosystem types.

Ideas: Food for humans and wildlife. Wildlife habitat. Resiliency to disease. Trees are paramount to maintaining the integrity and function of natural systems. Mix of species utilized to achieve sustainable urban forest. Preference for native species

iv. **Valued**

Definition: A valued urban forest is recognized as an essential asset for the long-term well-being of the community and the ecosystem.

Ideas: Scientifically-based forestry 'voice' represented in long-term decision making. Consistent decisions comply with this Mngt Plan. Trees are paramount to maintaining elements of community and historic character. Trees are valued



as a publicly owned utility. Trees are seen as assets rather than liabilities. Cooperative attitude that strengthens stakeholder partnerships to inspire stewardship and community engagement. Interdepartmental cooperation. State of the urban forest report broken down by neighborhood and/or watershed. Inspires stewardship and community engagement. Community gathering spaces are shaded and trees accent the character of neighborhoods and the history of Austin.

v. Protected

Definition: Trees and environmental features are protected utilizing sustainable site design and land management practices so that long-term ecosystem health is maintained.

Ideas: Site design (including infill) respects existing trees. Trees are given enough growing space to reach maturity. Development review process is simpler. Living design principles are incorporated into site planning. Trees will be incorporated and credited as an element of green infrastructure. Heritage trees. Property designations denote uses and restrictions by property types and goals. Urban design considers and respects the urban forest. Trees are utilized to mitigate urban heat island effect and air pollution (particulates, etc). City of Austin is carbon neutral. Biological components of infrastructures are realized and utilized. Forested land acquisition priorities have been established to meet urban forestry goals.

vi. Cared For

Definition: A well cared for urban forest is proactively managed for health, longevity, and safety.

Ideas: Proactive maintenance ensures most efficient use of budget and staff. Pruning cycle. Innovative irrigation techniques. The City is a leader in tree maintenance and recognizes national standards. Citizens are educated and empowered to care for trees on public and private property. Maintain tree inventory. Quantify trends and conditions of 1) tree inventory and canopy cover for each land use type, 2) tree-crown condition by land use type, 3) carbon and pollutant uptake and 4) street tree conditions. Complete analysis using nationally recognized model



Guiding Principles

1. Greatest Good – Producing the greatest amount of good for the greatest number of people
2. Wise Use of Resources – No waste of the urban forest, and the resources used to manage the urban forest
3. Sustainable – Management practices are developed within the framework of long-term ecosystem health
4. Science-based Decision Making – Decisions are made and policy is set based on the best currently available science as opposed to short-term, political motivation
5. Public Safety – Protecting the general public from undue risk to life and property
6. Industry Recognized Best Management Practices – Standards are established and followed in the care of all publicly managed trees

Hierarchy of Steps

1. Vision – sweeping, broad, general, 30,000ft view, so broad that it can't be measured (and you shouldn't try). It isn't vague, but very broad and difficult to measure, if not impossible. Value statement
2. Mission – A direction. A broad, sweeping pathway to a vision.
3. Goals support that the mission. SMART test applies here. (1 – 5yr time frame). Tip: Write the goals, summarize and then write the mission.
4. Recommendations are the components of the SMART test.



AUSTIN'S URBAN FOREST PLAN

June 2013 Updated Outline Organization Proposal

EXECUTIVE SUMMARY

INTRODUCTION

Introduction to the Plan

Mission/Goals/Objective

Purpose and Intent of the Plan

Summary

STATE OF AUSTIN'S URBAN FOREST

History and Regional Context

Vegetative Resource

Community Framework

Resource Management

THE URBAN FORESTRY PLAN

Vision Statement and 6 Vision Components

Guiding Principles

Policy Elements

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Recommendations

SUPPORTING DOCUMENTS AND APPENDICES

Departmental Operational Plans Packet/Template

GLOSSARY

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AUSTIN'S URBAN FOREST PLAN

June 2013 Updated Outline with details

EXECUTIVE SUMMARY

The executive summary will be written after the plan is written.

INTRODUCTION

- Introduction to the Plan
- Mission/Goals/Objective
- Purpose and Intent of the Plan
- Summary of Plan Content
 - Vision Statement and Vision Components
 - Guiding Principles
 - Benefits of the Urban Forest
 - Expectations and Implementation

STATE OF AUSTIN'S URBAN FOREST

- History and Regional Context: regional survey of our ecosystem; broad -> specific focus; Austin at the confluence of multiple regional ecosystems
 - Climate
 - Climatic transition zone
 - Unreliable source of precipitation
 - Drought v. flash flooding
 - Precipitation levels
 - Average temperatures
 - Ecoregion: defines natural vegetative cover
 - Balcones Escarpment -> the defining natural feature
 - Physical divide between natural regions
 - Cultural divide between 1) agriculture and cattle economies, and 2) rich and poor
 - Edwards Plateau
 - Balcones Canyonlands
 - Live Oak-Mesquite Savanna
 - Blackland Prairie
 - Floodplains & Low Terraces
 - Oak Woods & Prairies
 - Urban forest history: cultural elements
 - Margaret Hofmann
 - Aggressive tree preservation ordinance
 - Trees as cultural icons i.e. Treaty Oak
 - Citizen activism
- Vegetative resource (refer to Kenney et al. article)
 - Tree canopy distribution in 2006



- Breakdown of canopy distribution statistics
 - Percent canopy citywide, by ecoregions, by neighborhood, by parcels
 - Percent canopy by land use types
- Comparison of CBD tree canopy dataset to 2006 canopy dataset
- Summary/Challenges
- Public tree species mix, age, condition, value/benefits (refer to 2008 sample inventory)
 - Species mix
 - Total sample population: 14,925
 - Extrapolated/estimated population: 155,762
 - 164 tree species identified
 - Most common -> *Ulmus crassifolia* (Cedar Elm)
 - Top 10 species make up 75% of the total sample
 - Fairly adequate diversity
 - Only 4 single species compose >10% of the tree population
 - 154 “other” species comprise <2% composition (for each species) out of the tree population for
 - Age structure
 - DBH -> indicator of age and value of a tree
 - Frequency of trees decreases with increasing DBH size
 - 67% of sample in 0-10 in DBH category
 - Represents a young urban forest in need of care
 - Small DBH trees may be overrepresented in the sample due to City policy planting small statured species underneath power lines
 - Tree condition
 - The overall condition of structure, functional health, and risk factor rating
 - Most park and street trees have functional and structural conditions described as “fair” to “poor”
 - Public tree values/benefits
 - STRATUM findings
 - Summary/Challenges
- Community Framework
 - Public Policy
 - Land Development Code
 - § 6-3-5 – “With the assistance of the urban forester, the [Urban Forestry] board shall develop and revise the plan”
 - Heritage Tree Ordinance - Subchapter B of Chapter 25-8
 - Environmental Criteria Manual
 - Tree and Natural Area Preservation - Section 3
 - ImagineAustin
 - Green Infrastructure: “maintaining and increasing Austin’s urban forest as a key component of the green infrastructure network” (ImagineAustin, 2012, p.151).
 - Priority Action CE A22 mandates creation of the urban forest plan: “Create an urban forest plan that identifies tree canopy goals, establishes a budget, and presents implementation measures...create a green infrastructure program to



protect environmentally sensitive areas and integrate nature into the city”
(Imagine Austin, 2012, p.247).

- Tree planting programs
 - ACT
 - UF Program/PARD tree planting season
 - NeighborWoods
- Public Engagement/Awareness
 - Fall 2011 UFB retreat
 - 2012 public survey
 - Spring 2012 public meeting
- Program Infrastructure Resources
 - Staff
 - Work Order System
 - Departmental/Programmatic Tree Related Work
 - Partnerships
 - Internal
 - External
 - Citizens
 - Stewards
 - Advocates
 - Volunteers
 - Physical Resource
 - Equipment
 - Irrigation
 - Administrative Framework
 - PARD/Urban Forestry Program
 - Public Works
 - PDRD
 - WPD
 - Austin Energy
- Summary/Challenges
- Summary of overall performance criteria pertaining to Austin (reference Appendix for full list of criteria chart)

THE URBAN FORESTRY PLAN

- **VISION STATEMENT AND 6 COMPONENTS**

The vision statement was created during a multi-step collaborative process involving the Urban Forestry Board and City staff.

Austin’s urban forest is a healthy and sustainable mix of trees, vegetation, and other components that comprise a contiguous and thriving ecosystem valued, protected, and cared for by the City and all of its citizens as an essential environmental, economic, and community asset.



- SIX VISION COMPONENTS

1. Thriving: A thriving urban forest is one that is optimized according to site and ecosystem capacity.
2. Contiguous: A contiguous urban forest is composed of interconnected, forested corridors for transportation, community, recreation and wildlife throughout the city.
3. Healthy Ecosystem: A healthy urban forest is comprised of a diverse, native and uneven-aged palate of species adapted to the unique growing conditions of ecosystem types.
4. Valued: A valued urban forest is recognized as an asset that is essential to the well-being of the community and the ecosystem.
5. Protected: Trees are protected through sustainable site design and land management practices so that long-term ecosystem health is maintained.
6. Cared For: A well cared for urban forest is proactively managed for health, longevity and safety.

- GUIDING PRINCIPLES

The guiding principles were established during the initial phase of the plan's development during a brainstorming session with staff. The Principles apply to all areas of the plan and its development.

- SIX GUIDING PRINCIPLES

- Greatest Good Philosophy
- Wise Use of Resources
- Sustainable
- Science-Based Decision Making
- Public Safety
- Industry Recognized Best Management Practices

- POLICY ELEMENTS

The Policy Elements are the heart of the Comprehensive Urban Forest Plan (CUFP). Individual Policy Elements are seeds of change. Collectively, the Policy Elements provide a strategic framework for the City to grow the vision for the urban forest. Policy Elements are grouped into categories based on their urban forest topical domain. In conjunction with the other parts of the CUFP they provide a comprehensive approach to urban forest planning and will ultimately guide the management of Austin's public urban forest resource.

- IMPLEMENTATION

- Create Timeline of actions – year 1 – 20
- Departmental Operational Plans (DOP)
 - These will be customizable plans for each department to use to establish a performance baseline and for future tracking. The DOPs will blend the performance criteria for a Citywide scope with the Policy Elements for department specific activities. Each Department will be responsible for determining how they will approach and tackle the implementation of their own DOPs to support the CUFP. The City Urban Forester will designate a



representative to consult with each department to create their individual DOP. An interdepartmental working group will serve as an additional resource. Results of the DOPs yearly reporting will be used by the department for prioritization of resources and will be rolled up into an annual report to the Urban Forestry Board and City Council.

- RECOMMENDATIONS
 - Recommendations based on community input
- SUPPORTING DOCUMENTS AND APPENDICES
 - Departmental Operational Plans Packet/Template
 - Regulation
 - City Code Chapter 6 – Trees and Vegetation
 - City Code Chapter 25 – Trees and Development
 - Endangered Species Act
 - TDA Pesticide Application Rules
 - Federal Law for Utility Line Clearance
 - Policy
 - Environmental Criteria Manual
 - Transportation Criteria Manual
 - Oak Wilt
 - Urban Design Standards
 - Great Streets
 - Professional Standards
 - ANSI Z133 Safety Standards
 - ANSI A300 Tree Care
 - ANSI Z60.1 Nursery Stock
 - Standard Operating Procedures
 - Safety
 - Inspections
 - Operations and Administration
 - GIS and GPS units
 - Organizational Structure
 - Urban Forestry Program
 - Other Programs
 - Supporting Plans
 - Climate Protection Plan
 - Invasive Species Management Plan
 - Imagine Austin Comprehensive Plan
 - Balcones Canyonlands Preserve Plan
 - Integrated Pest Management Plan
 - Models
 - Milwaukee's Organizational Structure and Nursery
 - Minneapolis' Funding Mechanism
 - San Francisco Forestry Inventory
- GLOSSARY & BIBLIOGRAPHY



AUSTIN'S URBAN FOREST PLAN

Policy Elements Overview

What are the Policy Elements and Why Are They So Important?

The Policy Elements are the heart of the Comprehensive Urban Forest Plan (CUFP). Individual Policy Elements are seeds of change. Collectively, the Policy Elements provide a strategic framework for the City to grow the vision for the urban forest. Policy Elements are grouped into categories based on their urban forest topical category. In conjunction with the other parts of the CUFP they provide a comprehensive approach to urban forest planning and will ultimately guide the management of Austin's public urban forest resource.

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AUSTIN'S URBAN FOREST PLAN

Policy Elements

UFB Working Group | Friday 04-12-13

By unanimous consent the following progress was made in determining the Policy Elements section of the CUFP. Next steps include review and comment by internal working group and then final approval by UFB working group before inclusion in Plan.

THE POLICY ELEMENT CATEGORIES

- A. URBAN FOREST MANAGEMENT FRAMEWORK
- B. EDUCATION AND OUTREACH
- C. PRESERVATION
- D. PLANTING, CARE AND MAINTENANCE
- E. PLANNING AND DESIGN
- F. SUSTAINABLE URBAN FOREST

A. URBAN FOREST MANAGEMENT FRAMEWORK

The urban forest is an essential asset of City of Austin infrastructure and requires management. As with other City infrastructure, regular maintenance and management sustains the benefits provided to the City of Austin; however, an urban forest is a unique infrastructure, in that the value and benefits can increase with management over time. All City functions affect the urban forest, directly and indirectly. If the urban forest is to be recognized as an essential asset of the City of Austin, all City functions and operations must be considered and structured to provide consistent and appropriate urban forest management that is supportive of the City's urban forest vision. A proper management framework is necessary for a sustainable, healthy and safe urban forest for Austin's citizens and visitors to maximize its contribution to quality of life, ecosystem services, wildlife habitat and recreational opportunities.

UF-1 Management Priorities

Consider the urban forest when balancing between the competing needs of the environment, budget limitations, utilities and infrastructure, safety, the rights of property owners, and the desires of the public.

UF-2 Resource Needs

Ensure adequate resources are dedicated to the management of Austin's urban forest and ecosystem to support the City's urban forest vision.

UF-3 Urban Forestry Funding Allocation

Allocate an Urban Forestry funding for the maintenance, preservation, education improvement, and support of Austin's urban forest.

**UF-4 Funding Sources for Maintenance**

Utilize existing or develop new funding sources such as assessment districts, user fees, fundraising, donations, grants for projects, or an urban forest utility fee to fund urban forest management.

UF-5 Departmental Urban Forest Management Plan

Create a Departmental Operational Plan (DOP) for departmental urban forest management, consisting of an analysis of existing conditions and a work plan based on the DOP Action Matrix. Update the DOP to reflect changing policies and regulations, standards, best management practices, and accomplishments.

UF-6 Standards of Care for Trees and Plants

Incorporate City of Austin Standards of Care for Trees and Plants into departmental policies and operations. Regularly contribute recommendations to City of Austin's Standards of Care for Trees and Plants revisions, coordinated by the Urban Forester, according to the best available science and current best management practices, accepted standards and guidelines to support the DOP.

UF-7 Coordination of Efforts and Partnerships

Develop partnerships and coordinate with federal, state, regional and local governmental jurisdictions, local community non-profits and the private sector, to preserve, restore, manage, and design our urban forest.

UF-8 Staff Qualifications & Training

For all staff engaged in urban forest management and tree maintenance decisions, employ qualified individuals and provide regular training to maintain qualifications up to and above industry-recognized standards and best practices and ensure that decisions are being made and maintenance is being performed according to industry-recognized standards and best practices.

UF-9 Contracts

In contracting work, employ firms qualified to perform urban forest management according to industry recognized standards and best practices. Develop and incorporate standards and best practices into contract specifications.

UF-10 Urban Forester Support

Provide support to the Urban Forester to meet code mandated directives.

UF-11 Data Collection and Management

Collect data regarding Austin's urban forest, such as quantity of canopy cover, forest condition and diversity of species, to support the creation of a Departmental Operational Plan (DOP) and inform urban forest management decisions. Collaborate with federal, state, regional, and local governmental jurisdictions, community non-profits, and the private sector to collect and manage data.

B. EDUCATION AND OUTREACH

Public education and outreach are essential parts of any strategy to improve the urban forest. They can expand public awareness of the importance and benefits of a robust urban forest, and provide proper management techniques for this unique infrastructure. Increasing community stewardship through outreach and education benefits both the public and private tree resource and increases the likelihood of meeting Austin's goals for a healthy and sustainable urban forest.



EO-1 Education

Provide appropriate resources, technical, and educational materials to communicate policies, incentives, standards, and regulations in relation to the management of Austin's urban forest. Increase awareness of urban forest ecosystem issues such as proper plant selection, planting practices, maintenance, invasive species, insects and diseases, and appropriate use of native species. Support citywide urban forest education efforts.

EO-2 Promote Stewardship

Develop programming that leverages the commitment of citizens to engage in stewardship of Austin's urban forest.

EO-3 Incentives

Develop voluntary and incentive-based programs to build broader community support for the urban forest.

EO-4 Partnerships

Partner with federal, state, regional, and local governmental jurisdictions, community non-profits, the private sector and others in education and outreach efforts.

EO-5 Records and Information

Collect and make available urban forestry information to the public.

EO-6 Education of Urban Forest Service Providers

Educate tree care firms, or individuals that wish to provide professional urban forest maintenance services, as well as plumbers, irrigators, and others whose work may impact trees about Austin's policies, regulations, and standards to ensure the proper care of our urban forest.

EO-7 Demonstration Projects

Develop publicly accessible demonstration projects in diverse areas representative of the range of land use and development patterns in the City. Target projects that achieve the City's urban forest vision. Document and implement effective strategies citywide.

C. PRESERVATION

Preservation of our urban forest ecosystem is critical to achieving an enhanced quality of life for the citizens of Austin. Inherently there is a time lapse between the planting of a tree and realizing its full benefits; Austin's urban forest is not easily or readily replaceable. Therefore, preservation of existing healthy trees is crucial. The urban forest has significant cultural, historical and ecological meaning to residents and must be recognized and preserved for future generations to enjoy. A well preserved urban forest provides significant return by creating appealing streets, calming traffic, softening the built environment, reducing crime and increasing property values. Trees and forests provide buffering and screening between differing land uses, and are a source of community identity and civic pride.

Achieving tree preservation goals will require actions citywide by a broad range of stakeholders. The City will lead by example through responsible urban forest preservation on its own property and will enhance tree preservation through code modifications, flexibility in City requirements for infrastructure improvements, modifications of City fees, and other approaches.

**PR-1 Flexible Regulatory Approaches**

Recognize differing land use needs and characteristics, structure regulatory approaches in a manner that provides flexibility and various options to support the preservation of trees and vegetation. Examine regulations to reconsider disincentives for urban forest preservation.

PR-2 Protection of Trees During Development

Evaluate and implement tree preservation practices to promote the long-term health and survival of trees that are retained during construction.

PR-3 Protected and Heritage Trees

Evaluate and improve the protection of public Protected and Heritage trees during and after development and through sustainable land management practices.

PR-4 Rare Native Tree and Plant Species

Provide additional protection for rare species from the impacts of urbanization. Establish incentives, regulations and education efforts to protect and preserve rare native species.

PR-5 Protect Steep Slopes

Pursue retention of existing trees and vegetation that help stabilize steep slope areas in order to increase public safety, maintain slope stability, decrease soil erosion, and retain environmental function and natural character.

PR-6 Partnerships

Partner with federal, state, regional, and local governmental jurisdictions, community non-profits, City departments, the private sector and others to increase preservation of the urban forest.

PR-7 View Obstructions

Establish incentives, regulations and education efforts to reduce conflicts between public and private interest and prioritize the urban forest in decisions regarding eliminating view obstructions, except with regard to public safety or in established view corridors.

PR-8 Tree Valuation

Support and update tree valuation methods to closely reflect the complete value of trees for use when assessing fines, determining damages or estimating loss.

PR-9 Recovering Tree Value

When preservation of trees is not feasible, recover the complete functional value of the lost tree asset and mitigate the loss as close proximity to the loss and as soon as possible.

D. PLANTING, CARE AND MAINTENANCE

Proper planting, care and maintenance are necessary to sustain and enhance the quality of life for Austinites now and in the future. In addition, trees can be used to accomplish other land use goals and should be a significant part of Austin's visual identity, contributing to a special "sense of place" and bringing a sense of natural beauty to the built environment. Planting and caring for trees in Austin will help to maintain strong, safe, and healthy neighborhoods and business districts by enhancing Austin's identity and civic pride.

**PCM-1 Planting Priorities**

Prioritize tree planting and landscaping on public property particularly in highly visible locations such as business districts and major corridors to maximize environmental, social and economic benefits. Avoid and/or minimize conflicts with existing public infrastructure.

PCM-2 Species Selection

Encourage the selection of appropriate native species based on project, location, and site conditions.

PCM-3 Tree Planting and Maintenance Program

Establish and maintain a strategic planting and maintenance program. Promote the survival of newly planted trees through proactive maintenance using community education, best management practices, standards and regulations. Encourage and plan for plantings to occur during winter months. If planting occurs during other months ensure that additional steps are taken to support tree survival.

PCM-4 Planting Stock

Utilize high-quality planting stock originating from Central Texas region seed-sources and grown in nurseries that simulate Central Texas growing conditions.

PCM-5 Tree Canopy Cover

Identify canopy goals according to site and ecosystem capacity and plan to achieve them with tree planting.

PCM-6 Landscape Maintenance Management Plans

Ensure that trees and plants are properly cared for and survive, both during the plant establishment period and in perpetuity through such means as landscape management plans, maintenance agreements, and monitoring.

PCM-7 Partnerships

Partner with federal, state, regional, and local governmental jurisdictions, community non-profits, City of Austin departments, the private sector and others to increase the replenishment, maintenance and care of Austin's urban forest.

PCM-8 Public Safety

Take reasonable measures to reduce risk of trees that impact public health and safety.

PCM-9 Proactive Tree Care and Maintenance Plan

Proactively manage the urban forest to reduce resources expended on emergency tree management.

E. PLANNING AND DESIGN

Proper planning and design provides consistent conditions for growing a healthy urban forest. The urban forest is an integral aspect of the landscape and promotes livability and quality of life in Austin. The urban forest provides aesthetic and economic value to property owners and to the community at large. Preservation of existing mature trees through planning and replenishment of the urban forest through sustainable design are crucial to our community's health and the health of Austin's urban forest.

**PD-1 City Design Coordination**

Establish coordination among City departments and utility providers when planning and designing public projects that include landscaping, tree preservation, planting, and urban forest impacts.

PD-2 Infrastructure Design

Design streets, sidewalks, utilities and other infrastructure with a thorough consideration of existing and proposed trees and standards of care during the planning, design and construction processes.

PD-3 Soil Quality

Encourage retention and use of native soils for areas in new developments. Where native soils and growing conditions are not sufficient or optimal encourage use of soils engineered to be supportive of long-term tree health and provide a sustainable growing environment for trees.

PD-4 Soil Volume

Increase the dedicated airspace and root volume available for tree planting to provide better accommodation of large canopy trees and to assist with achieving the optimum canopy coverage goal.

PD-5 Soil Compaction

Avoid the compaction of soils and encourage soil amendments during and after development to increase or maintain infiltration of stormwater on-site to reduce run-off.

PD-6 Landscaping and Stormwater Management

Align the City's landscape regulations and specifications with the integration of landscaping elements and low impact development stormwater management approaches. Emphasize use of techniques that can effectively achieve multiple urban forestry and stormwater management objectives. Some examples include native vegetation preservation, native soil retention and soil amendment, stormwater dispersion and infiltration.

PD-7 Partnerships

Partner with federal, state, regional and local governmental jurisdictions, community non-profits, the private sector and others to enhance the planning and design of public and private development and improvements in Austin.

PD-8 Planning Infrastructure Maintenance

Consider Austin's urban forest in conjunction with other infrastructure systems when planning for the long-term maintenance of infrastructure and utilities.

PD-9 Tailored Incentives

Develop incentives, programs and/or regulations that are tailored to the needs and characteristics of differing land uses.

F. SUSTAINABLE URBAN FOREST

Sustainability can be described as maintaining a level of ecological balance by avoiding degradation or depletion of a resource. An urban forest that is managed sustainably is healthier and allows more trees to mature and more species to thrive. Healthy forests ultimately increase the ecological, social, and economic benefits of the forest and improve with forest management. In keeping with Austin's existing



policies to become a more sustainable city, Austin's urban forest should be no exception. While preservation, planting, care and maintenance, and the canopy cover goal are strategies of urban forestry that meet sustainability goals there are also other ways to increase the sustainability of our urban forest. This section is intended to address those methods.

S-1 Species, Age, and Geographic Diversity

Increase species diversity, an appropriate mix of tree types, and a varied distribution of species throughout the City to protect the resilience of our urban forest. Encourage a mixed-age tree population by planning for the growth and aging of the urban forest.

S-2 Urban Wood Utilization

Recycle all green waste generated by urban forest maintenance and encourage the highest and best sustainable uses of removed trees and woody material.

S-3 Integrated Pest Management

Incorporate Integrated Pest Management principles into land management practices.

S-4 Nutrients

Encourage the use of naturally derived products to provide a more sustainable nutrient source to the urban forest when needed.

S-5 Wildlife

Enhance wildlife habitat through urban forestry policies and management practices.

S-6 Wildland Urban Interface

Achieve a balance between community desires for wildfire risk reduction and responsible vegetation management within the Wildland Urban Interface

S-7 Invasive Species Management

Identify and suppress non-native invasive species. Provide public education about the detriment of non-native invasive species to the urban forest particularly when related to other management policies.

S-8 Water Conservation

When utilizing water for urban forestry seek water conservation practices that maximize the use of potable and non-potable sources.

S-9 Urban Forest Pests

Identify and respond to critical urban forest pests to reduce their impact on the community's urban forest.

S-10 Partnership

Partner with federal, state, regional, and local governmental jurisdictions, community non-profits, the private sector and others to accomplish the sustainability goals of Austin's urban forest ecosystem.