



City of Denton

City Hall
215 E. McKinney St.
Denton, Texas 76201
www.cityofdenton.com

Meeting Agenda

Committee on the Environment

Tuesday, November 12, 2024

9:00 AM

Development Services Center Room 5

After determining that a quorum is present, the Committee on the Environment of the City of Denton, Texas will convene in a Regular Meeting on Tuesday November 12, 2024, at 9:00 a.m. in the Development Services Center Training Room 5 at , 401 N. Elm Street, Denton, Texas at which the following items will be considered:

1. ITEMS FOR CONSIDERATION

- A. [COE24-012](#) Consider approval of August 13, 2024 minutes.

Attachments: [8-13-2024 Minutes](#)

- B. [COE24-010](#) Receive a report and hold a discussion regarding the City of Denton’s tree management software.

Attachments: [Exhibit 1 - Agenda Information Sheet](#)

[Exhibit 2 - Denton Tree Management Software](#)

- C. [COE24-011](#) Staff Reports

Attachments: [Exhibit 1 - Annual Summary Memo](#)

[Exhibit 2 - Action Item Matrix](#)

2. CONCLUDING ITEMS

A. Under Section 551.042 of the Texas Open Meetings Act, respond to inquiries from the Committee on the Environment or the public with specific factual information or recitation of policy, or accept a proposal to place the matter on the agenda for an upcoming meeting AND Under Section 551.0415 of the Texas Open Meetings Act, provide reports about items of community interest regarding which no action will be taken, to include: expressions of thanks, congratulations, or condolence; information regarding holiday schedules; an honorary or salutary recognition of a public official, public employee, or other citizen; a reminder about an upcoming event organized or sponsored by the governing body; information regarding a social, ceremonial, or community event organized or sponsored by an entity other than the governing body that was attended or is scheduled to be attended by a member of the governing body or an official or employee of the municipality; or an announcement involving an imminent threat to the public health and safety of people in the municipality that has arisen after the posting of the agenda.

CERTIFICATE

I certify that the above notice of meeting was posted on the official website (<https://tx-denton.civicplus.com/242/Public-Meetings-Agendas>) and bulletin board at City Hall, 215 E. McKinney Street, Denton, Texas, on November 8, 2024, in advance of the 72-hour posting deadline, as applicable, and in accordance with Chapter 551 of the Texas Government Code.

OFFICE OF THE CITY SECRETARY

NOTE: THE CITY OF DENTON'S DESIGNATED PUBLIC MEETING FACILITIES ARE ACCESSIBLE IN ACCORDANCE WITH THE AMERICANS WITH DISABILITIES ACT. THE CITY WILL PROVIDE ACCOMMODATION, SUCH AS SIGN LANGUAGE INTERPRETERS FOR THE HEARING IMPAIRED, IF REQUESTED AT LEAST 48 HOURS IN ADVANCE OF THE SCHEDULED MEETING. PLEASE CALL THE CITY SECRETARY'S OFFICE AT 940-349-8309 OR USE TELECOMMUNICATIONS DEVICES FOR THE DEAF (TDD) BY CALLING 1-800-RELAY-TX SO THAT REASONABLE ACCOMMODATION CAN BE ARRANGED.

OFFICE OF THE CITY SECRETARY



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Legislation Text

File #: COE24-012, **Version:** 1

AGENDA CAPTION

Consider approval of August 13, 2024 minutes.

CITY OF DENTON COMMITTEE ON THE ENVIRONMENT MINUTES
August 13, 2024

After determining that a quorum was present, the Committee on the Environment of the City of Denton, Texas, convened in a Regular Meeting on Tuesday, August 13, 2024, at 9 a.m. in the Solid Waste Training Room, 1527 S. Mayhill Rd., Denton, Texas.

PRESENT: Chair Beck, Vice Chair McGee & Member Joe Holland

ABSENT: None

REGULAR MEETING

1. ITEMS FOR INDIVIDUAL CONSIDERATION

A. COE24-006 - Consider approval of the April 23, 2024 minutes.

Member Holland moved to approve the item as presented. Motion seconded by Member McGee. Motion carried.

YES (2): Vice Chair McGee & Member Joe Holland

NO (0): None

Absent (1) Chair Beck

B. COE24-007 – Receive a report and hold a discussion about commercial organics pilot program.

The item was presented by Brandi Neal with Solid Waste & Recycling.

Neal discussed the Comprehensive Solid Waste Management Strategy, Diversion Goals, Waste Characterization Study, and Food Waste.

Chair Beck arrived during this item.

B. COE24-008 – Receive a report and hold a discussion about GreenSense Incentive Program expenditures.

The item was presented by Katherine Barnett with Environmental Services and Sustainability. Barnett discussed program expenditures and answered questions.

D. COE24-009 – Staff Reports

2. CONCLUDING ITEMS

With no further business, the meeting was adjourned at 10:00 a.m.

BRIAN BECK
CHAIR
CITY OF DENTON, TEXAS

KATHERINE BARNETT
SUSTAINABILITY MANAGER
CITY OF DENTON, TEXAS

Minutes approved on: _____



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AGENDA CAPTION

Receive a report and hold a discussion regarding the City of Denton's tree management software.



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AGENDA INFORMATION SHEET

DEPARTMENT: Parks and Recreation

CM/DCM/ACM: Christine Taylor Assistant City Manager

DATE: November 12, 2024

SUBJECT

Receive a report and hold a discussion regarding the City of Denton's tree management software.

BACKGROUND

Staff will present on the City of Denton's tree canopy management software, provide insight on tree canopy growth rate, the public realm tree inventory and tree planting action plan draft.

EXHIBITS

Exhibit 1 – Agenda Information Sheet

Exhibit 2 - Presentation

Respectfully submitted:
Haywood Morgan, Jr
Urban Forester



Denton Tree Management Software

Haywood Morgan, Jr.
Urban Forester
Parks and Recreation
November 12, 2024

ID: COE24-010



What is Tree Canopy Coverage?

- The layer of branches, leaves, and stems of trees that cover the ground when viewed from above.



11/12/2024

ID: COE24-010



How Fast does Tree Canopy Increase?

- 2016 Canopy 0.3%
- 2024 Canopy 3.3%
- Potential Canopy
 - 21.2%



11/12/2024

ID: COE24-010

3

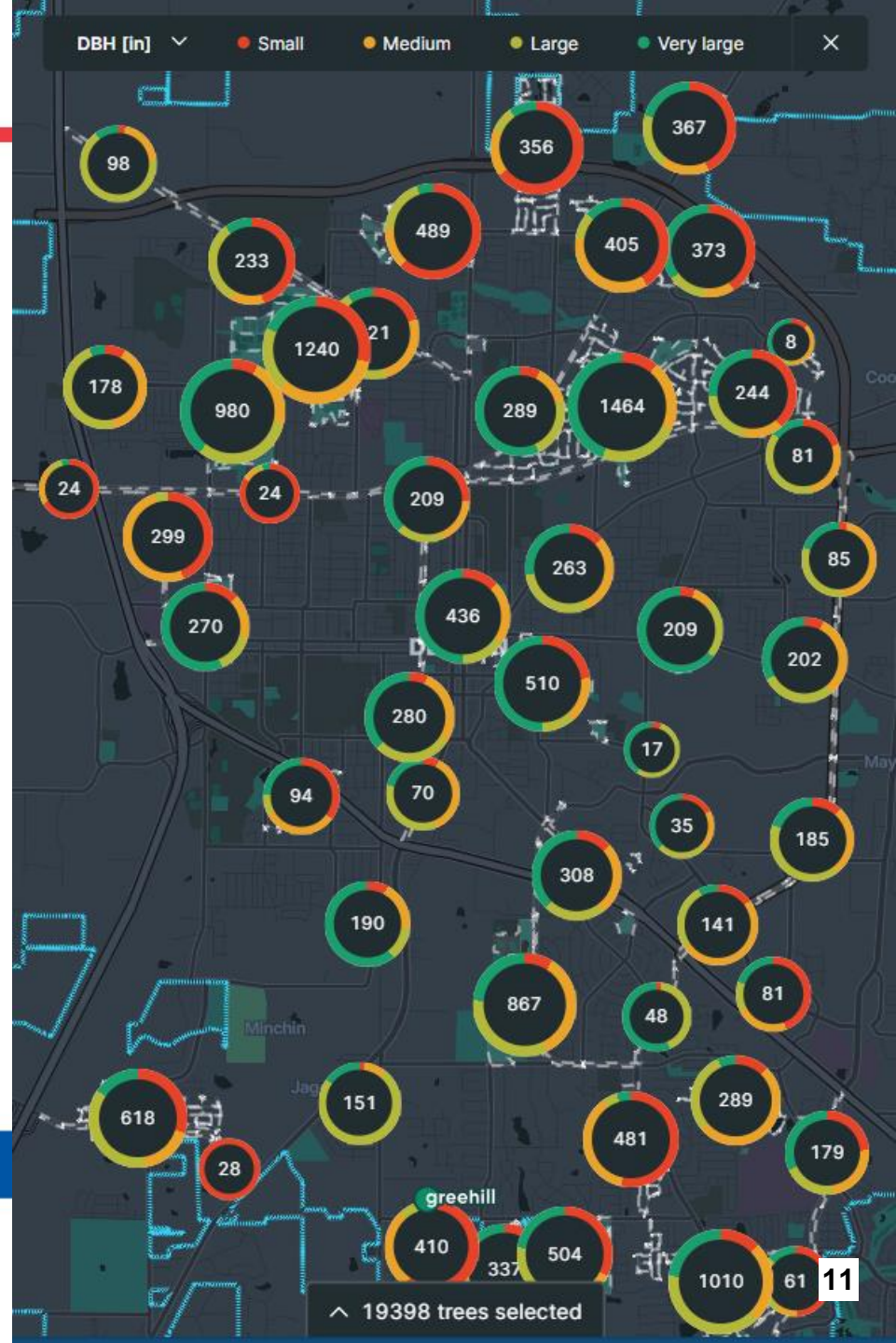
Tree Management Software

- PlanIT Geo 2022-23
 - Tree Canopy Tracking on pause
- greehill 2023-present
 - Public Realm Tree Inventory
- TreeKeeper Coming this Fall/Winter
 - Tree Canopy and Inventory work management
- American Forest Tree Equity Map



11/12/2024

ID: COE24-010



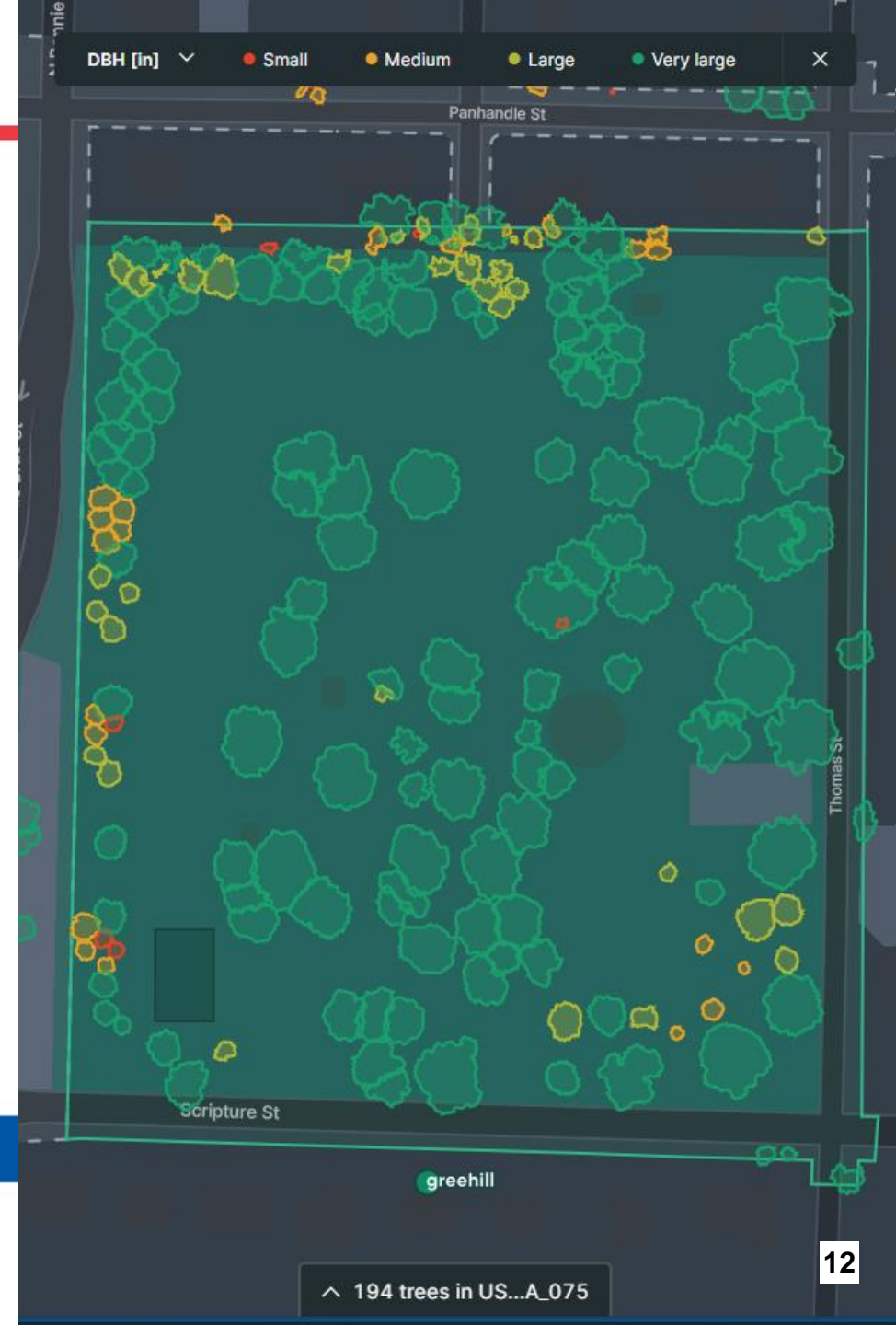
Tree Management Software greehill

- Objective
 - To develop an inventory of trees in maintained areas of parks, city properties and public right-of-way as called for in the 2020 UFMP.



11/12/2024

ID: COE24-010



How was it done?

- Data was captured using sensitive car-mounted LiDAR and a high-resolution 360° cameras to capture every tree.



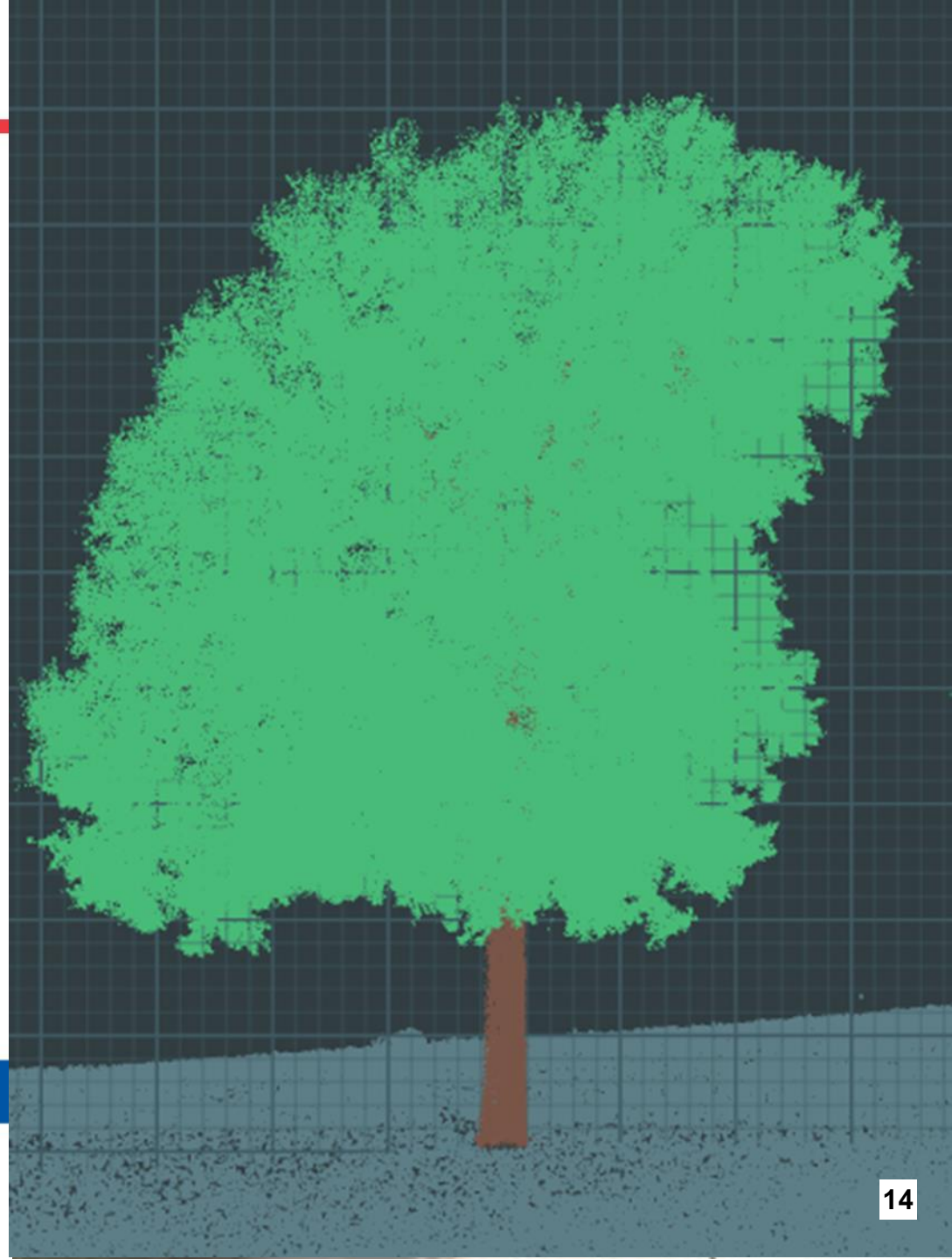
What Did We Get?

- Improved work management
 - Improved tree health
 - Increased Safety/Reduced liability
- Data driven decision making
- Budgeting
- Guidance on new planting




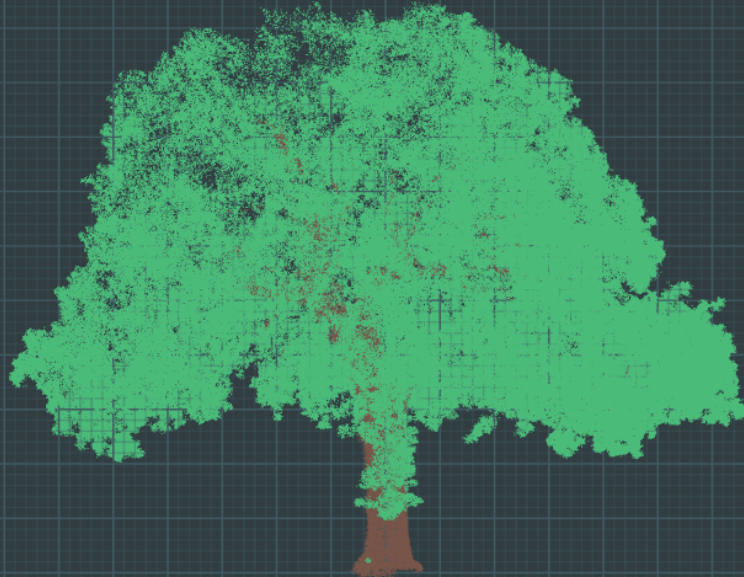
11/12/2024

ID: COE24-010



What Did We Get?

← MAP Tree 12010 



7/2/2023 Twin view

> Inventory

GENUS	SPECIES	COMMON NAME	STREET NAME AND NUMBER
Quercus	stellata	No data	No data

▼ Risk Health & Vitality Environment **Benefits**

Water management

Avoided runoff	20.91 ft ³ /yr	Evaporation	222.38 ft ³ /yr
Potential Evapotranspiration	2902.01 ft ³ /yr	Transpiration	1071.11 ft ³ /yr
Water Intercepted	222.64 ft ³ /yr		

Ecosystem services

Carbon Storage	3747.60 lb	CO ₂	0.03 lb/yr
Gross CO ₂ Sequestration	378.10 lb/yr	NO ₂	0.09 lb/yr
Oxygen Production	999.15 lb/yr	O ₃	1.49 lb/yr
PM _{2.5}	0.06 lb/yr	SO ₂	0.01 lb/yr

Economical value

Cavat value	17573.08 £	Koch value	12405.90 €
Rado value	1274.48 Ft		

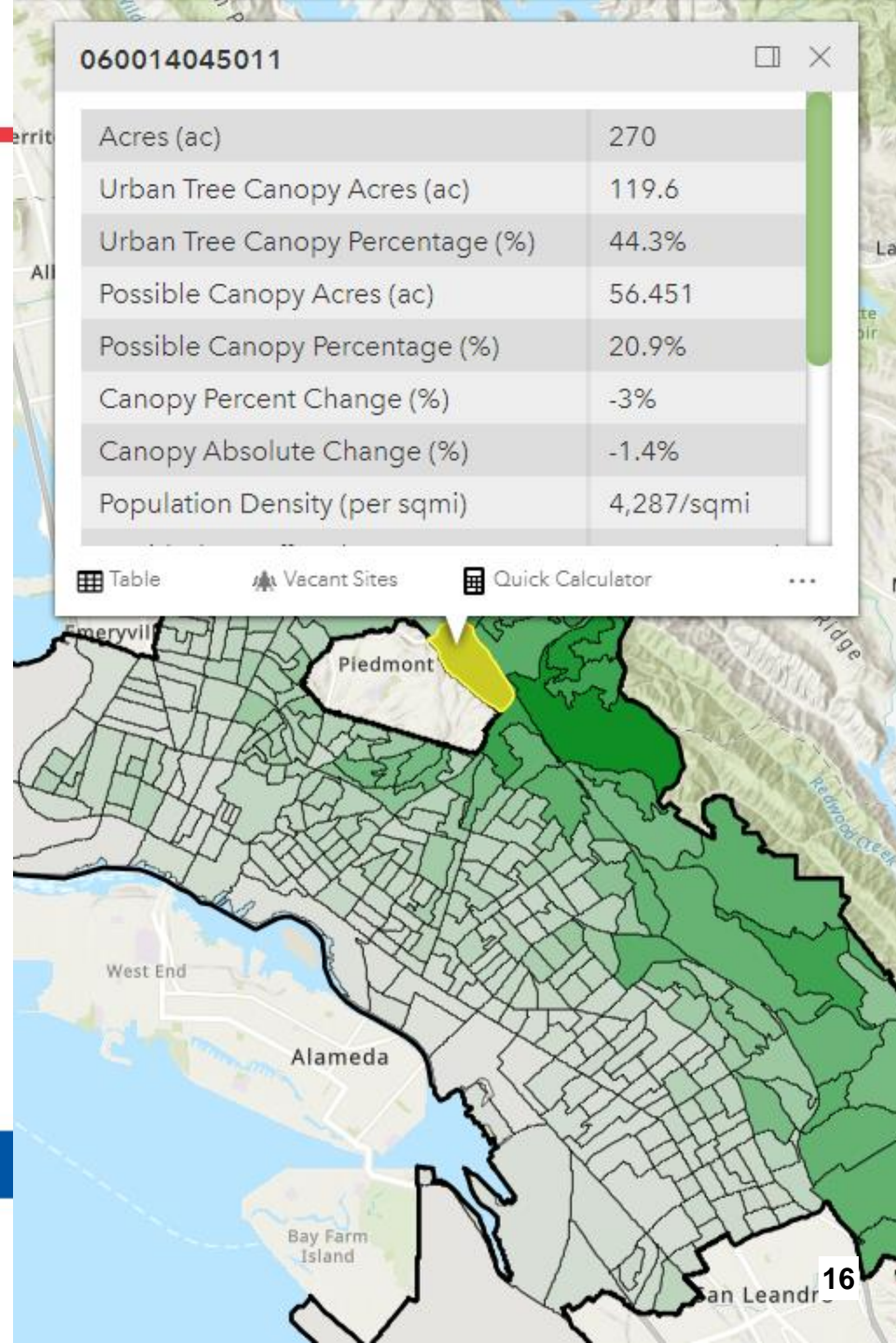
Tree Management Software TreeKeeper

- Companion software to greehill tree inventory software.
- Tree Inventory Data
- Tree Canopy Data



11/12/2024

ID: COE24-010



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Acres (ac)	270
Urban Tree Canopy Acres (ac)	119.6
Urban Tree Canopy Percentage (%)	44.3%
Possible Canopy Acres (ac)	56.451
Possible Canopy Percentage (%)	20.9%
Canopy Percent Change (%)	-3%
Canopy Absolute Change (%)	-1.4%
Population Density (per sqmi)	4,287/sqmi

Table

Vacant Sites

Quick Calculator

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Piedmont

West End

Alameda

Bay Farm
Island

San Leandro 16

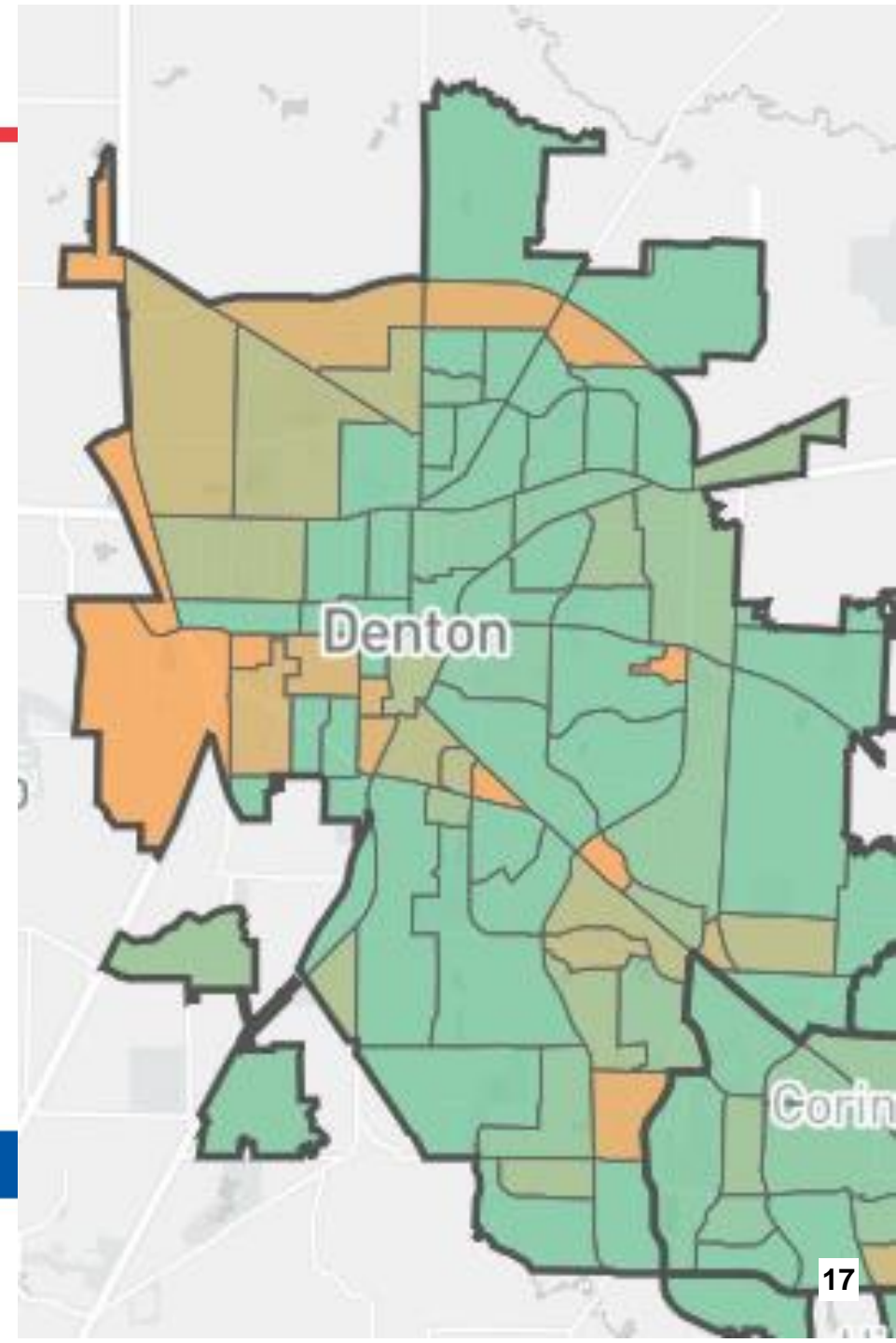
American Forest – Tree Equity Map

- Tree Equity Score – is a metric that helps cities assess how they are delivering equitable tree canopy cover to all residents. It takes into consideration tree canopy, climate, demographic and socioeconomic data.



11/12/2024

ID: COE24-010



American Forest – Tree Equity Map

TARGET SCORE: 80

Target block groups: 17



	CURRENT SCORE	SCORE GAIN	CURRENT CANOPY	CANOPY GAIN	TREES NEEDED	POP	POV	POC	UNEMPL	AGE	LANG	HEALTH	HEAT
BG 481210212031	44	+36	7.1%	+14.6%	652	1,256	74%	60%	30%	48%	8%	64	+4.4°F
BG 481210213011	61	+19	9.1%	+10.0%	453	961	55%	66%	0%	13%	10%	56	+8.0°F
BG 481210203102	62	+18	3.2%	+12.4%	2,665	1,221	21%	12%	3%	44%	0%	50	-3.3°F
BG 481210208002	64	+16	10.0%	+8.7%	8,812	1,768	71%	34%	12%	9%	5%	67	+5.6°F
BG 481210209002	66	+14	13.2%	+6.6%	356	2,624	80%	59%	9%	9%	9%	56	+7.7°F
BG 481210212043	69	+11	10.7%	+6.6%	387	1,108	75%	47%	2%	3%	0%	64	+4.3°F
BG 481210204051	71	+9	8.0%	+6.5%	6,563	2,001	25%	19%	9%	30%	2%	48	-0.1°F



11/12/2024

ID: COE24-010

11

5-Year Planting Plan Draft

- Focuses on areas near pavement (street, parking lots and paved trails)
- Plants and irrigates 1322 tree
- Replaces 262 trees



11/12/2024

ID: COE24-010

Locaiton	Year	Number of Trees
Five-Year Tree Planting Plan 2024-25		

Locaiton	Year	Number of Trees
Mayhill Rd South of McKinney	2027-28	150
Bell Ave TWU	2027-28	40
North Lakes Park Soccer	2027-28	35
Paisley & Audra (2" cal)	2027-28	19
Mac Park South	2027-28	14
Patrick Park (2" Arbor Day)	2027-28	19
Tree Replacement	2027-28	50
Total		327

Five-Year Tree Planting Plan 2028-29		
Mayhill Rd North of McKinney	2028-29	150
San Jacinto Blvd	2028-29	19
Lake Forest Park II (2" cal. Arborday)	2028-29	26
Linda McNatt Entrance	2028-29	22
South Lakes Trail West Section 6	2028-29	23
South Lakes Trail West Section 5	2028-29	17
Bonnie Brae II	2027-28	8
Windsor Dr NL	2028-29	6
Tree Replacement	2028-29	50
Total		321

Windsor Dr NE (North Side of Rd)	2026-27	22
Hurcules Ln	2026-27	15
Mac Park N	2026-27	6
Fred Moore Park (2"cal. Arbor Day)	2026-27	20
Tree Replacement	2026-27	519
Total		345

Questions?

Haywood Morgan, Jr

Urban Forester

Parks and Recreation



11/12/2024

ID: COE24-010

13



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AGENDA CAPTION

Staff Reports



MEMORANDUM

DATE: November 12, 2024
TO: Committee on the Environment
FROM: Karen Boerner, Sustainability Engagement Specialist
SUBJECT: Annual Summary of Sustainability Education, Outreach, and Social Media for Fiscal Year 2023-2024

Sustainability education and outreach primarily focus on topics such as air quality, land use, waste reduction, transportation, and energy/water conservation and are provided through a variety of methods; classes and workshops, tabling at events, activities, presentations, tours, meetings, and interviews. These topics are also integrated into the Denton Sustainable Schools program and presented at teachers' request. For the 2023-2024 school year, 17 schools participated, 16 sustainability challenges were completed, and 72 recycling audits were performed, and.

In Fiscal Year 2023-2024, Sustainability staff participated in more than 160 events with a total attendance of 10,748 people. Community Education is aligned with City Strategic Goals and developed to facilitate more sustainable practices to ensure these goals are achieved. Sustainable practices such as lowering water and energy consumption and diverting materials from the landfill are interwoven into education and help fulfill the goals of our partner department as well. Programming is also designed to help fulfill the goals of City partner organizations and programs such as Bee City, Monarch City, and Bird City by providing tools for the community to support these efforts.

Staff participated in tabling opportunities across the community including events sponsored and/or hosted by the City of Denton, University of North Texas, Texas Woman's University, Denton Independent School District, and more. Class offerings this past year included Beginner Composting, Birding Basics, What's the Buzz About Beekeeping, and Home Weatherization. Sustainability Staff also facilitates tours of the recycling facility, City of Denton Landfill, Water Plants, and Wastewater Treatment plant that allow residents and students to get a behind-the-scenes view of municipal operations and learn how incorporating sustainability into their everyday lives interacts with City of Denton operations.

In addition to active outreach, Sustainability staff were able to develop advertising for passive education. These recycling advertisements include a movie advertisement at Denton theaters, a mall kiosk and football halftime ads. The halftime ads were filmed by Denton Television, one of which ran during broadcasts of all Denton ISD High School football games and the other played at halftime during all UNT football games on the stadium big screen.

UNT advertisement: <https://youtu.be/hPVw1dmUpqU>

DISD advertisement: <https://youtu.be/CThshe9V-mU?feature=shared>

OUR CORE VALUES

Inclusion • Collaboration • Quality Service • Strategic Focus • Fiscal Responsibility

Social Media

The Sustainability division manages both the Sustainability and Solid Waste & Recycling social media accounts. Sustainability uses Facebook and Instagram to reach residents on their screens. Solid Waste & Recycling uses Facebook, Instagram, Twitter, and Nextdoor.

All social media platforms are additional methods to communicate and educate residents within the community and provide simple tips or reminders of upcoming workshops. Social media is one tool used to advance messaging into the broader community. All social media platforms noted an increase in followers for a total growth of 7% over FY 23-24. While all platforms saw an increase, the biggest increase witnessed was the Sustainability Instagram growing from 89 followers at the beginning of the FY23-24 to 199 followers for a growth of 124%.

Total Events for Fiscal Year 2023-2024:

October 1, 2023 - September 30, 2024		
Event Type	Number of Events	Total Attendance
Activity	25	868
Meeting	22	73
Presentation	53	3,612
Tabling	39	5,822
Tours	19	367
Interviews:	2	6
Totals:	160	10,748

Historical Events and Participation

	Number of Events	Total Attendance
FY 2020-2021	9	295
FY 2021-2022	77	6,802
FY 2022-2023	226	10,820
FY 2023-2024	160	10,748

UPCOMING SUSTAINABILITY EVENTS (Nov-Feb)

- Texas Recycles Day, November 16
- Stream Clean, December 7
- Beginner Composting, January 11
- Basic Bike Repair, January 22
- Citizen Science: An Overview, February 6
- Honey Run, February 8
- Where Does Our Water Come From? (Kids class), February 11
- Sprinkler Spruce-up, February 12

COMMITTEE ON THE ENVIRONMENT NEW BUSINESS ACTION ITEMS MATRIX

	DATE REQUESTED	REQUESTOR	ITEM	DEPARTMENT	STATUS
1.	8/8/23	Beck	Presentation with PlanITGeo/discussion of urban gardens.	ESS/Parks	11/12/24
2.	10/10/23	All	Research cost of “silent” fireworks compared to traditional options	ESS	TBD
COMPLETED					
	6/13/23	McGee	North Central Texas Council of Governments Update	ESS	Complete/Nov.
	8/8/23	Beck	Joint Meeting with EPA		Complete/revisit if needed
	4/11/23	Davis	Streetlights – Dark Sky – new fixture	DME	DCRC
	12/13/22	McGee	Environment Legislative Update	ESS/CMO	As needed
	6/13/23	Beck	Requesting joint meeting/ work session w/ SFAC	ESS	Completed/April 2024