



Tree Equity Working Group

April 8, 2025



Agenda

- Meeting norms
- Spotlight: Blacks in Green
- Mission statement next steps
- Drone footage survey
- Arbor/Earth Day
- Our Roots tree survival study
- Updates + discussion

★ Meeting norms

- Be kind
- Share your perspective and allow others to do the same
- Use the chat, raise your hand to speak
- Stay on topic
- Send updates and ideas in advance



Member spotlight

Blacks in Green

Naomi Davis



Mission statement next steps

The Tree Equity Working Group's mission is to grow and sustain Chicago's urban forest through equitable investment, proactive stewardship, and community-centered care for public trees.

The TEWG advances its mission by convening non-profit organizations, community groups, advocates, neighbors, and other stakeholders to provide critical input on tree-related programs and policies, with a specific focus on equity. TEWG members play a key role in holding the City accountable for its urban forestry commitments. The working group also serves as a platform for education, collaboration, and capacity building to drive lasting change.

All voices are welcome in this conversation.

Drone footage update

Michelle Stuhlmacher, Ph.D.
DePaul University

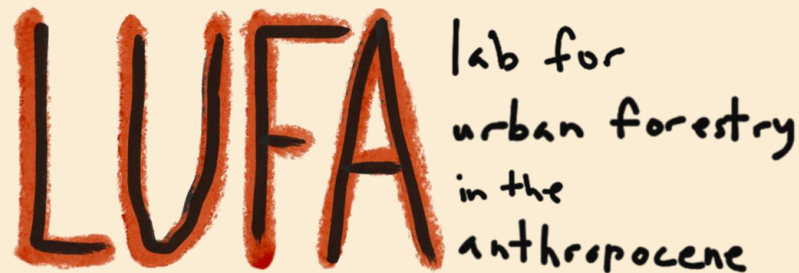
Arbor Day / Earth Day

Earth Day – April 22

Arbor Day – April 25

Sydney Bosley & Dr. Jess Vogt

Evaluating Our Roots Chicago, an equity-based tree-planting program: Survival and condition of recently planted trees



Research Objectives

How do social-ecological factors affect the success of Our Roots street trees?

- a. How does survival and condition (dieback) compare for street trees in Our Roots neighborhoods compared to non-Our Roots neighborhoods?
- b. What biophysical characteristics at the tree- and site-level influence tree survival and condition?
- c. What community characteristics influence street tree survival and condition (dieback)?

Methods

- 🌳 Census Tract Selection – propensity score matching
- 🌳 Street Tree Inventory
 - 🌳 1,192 street trees, 36 census tracts
- 🌳 Analysis – GLM in RStudio

Propensity Score Matching

- 🌳 Eliminate bias in sampling selection
- 🌳 Match observations -> shared characteristics

Tree count	Median household income
% canopy cover	% white population
Unemployment rate	% buildings built before 1970

Tree Inventory

Location

Tree ID

Species

DBH

Mortality status

Crown dieback

Lower trunk damage, Overall damage

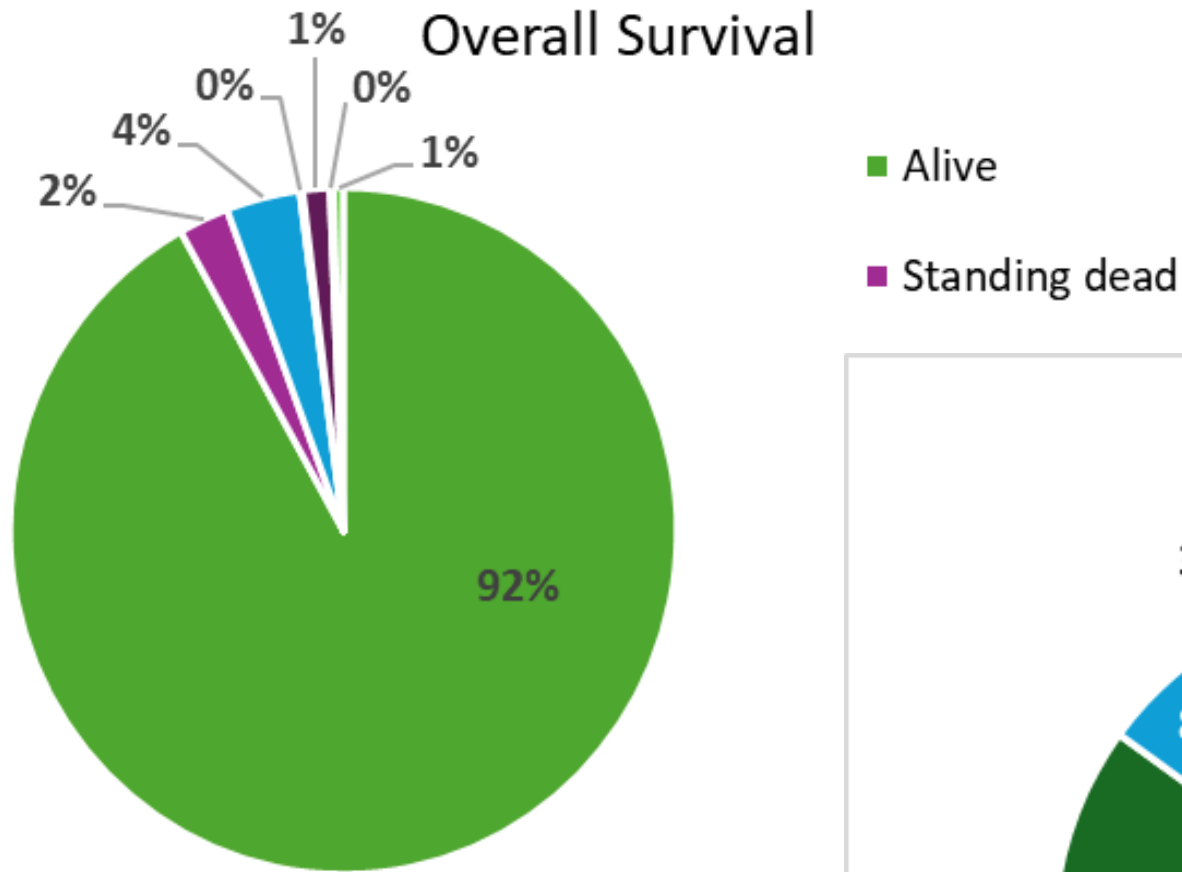
Planting area type

Maintenance (mulch/staking/piping)

Crown Dieback Rating	Visually Estimated % Dieback
0	0% (no dieback)
1	1-20% dieback
2	21-40% dieback
3	41-60% dieback
4	61-80% dieback
5	81-99% dieback
6	100% dieback (no living branches)

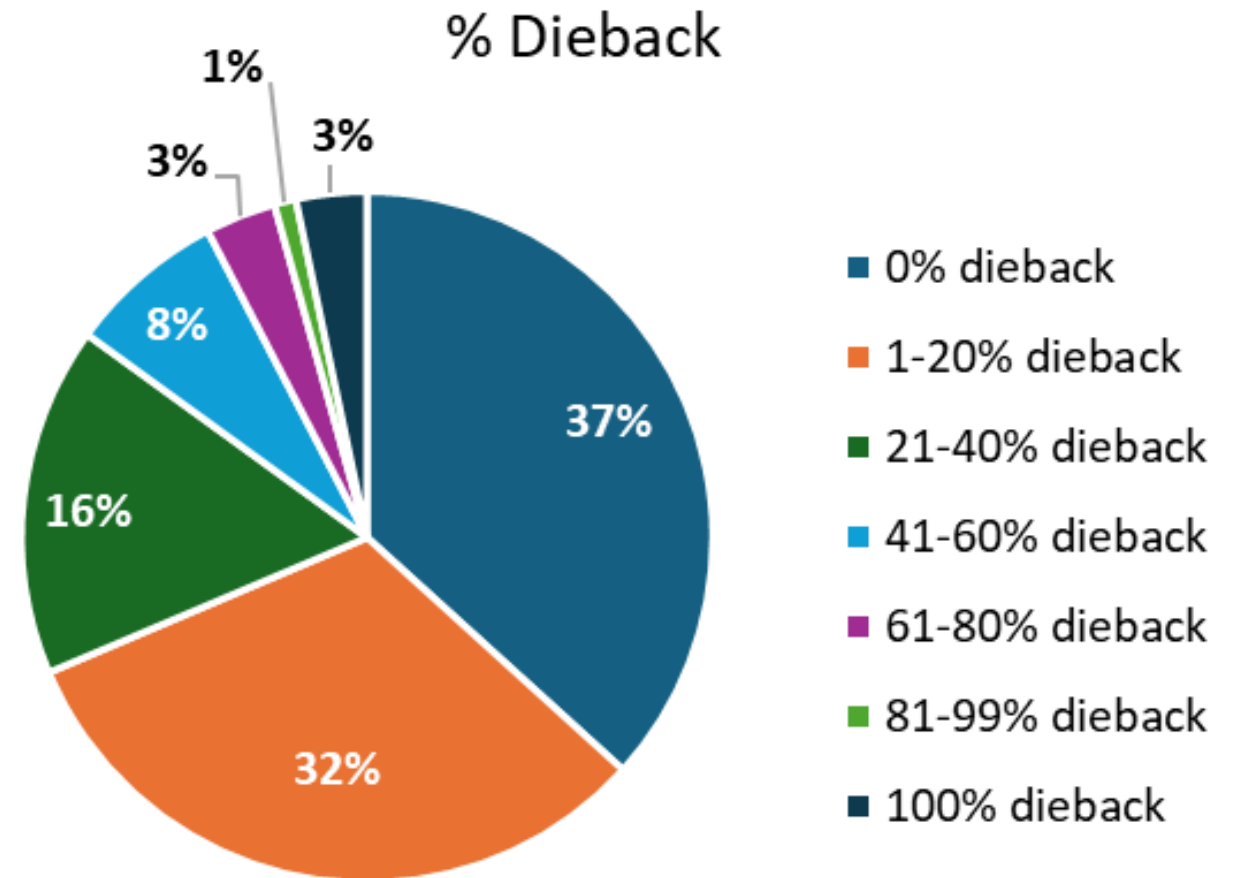


Results



Overall: ~8.3% mortality

- Inventoried OR trees: ~5.6% mortality
- Inventoried non-OR trees: ~9.9% mortality



DV = Survival	Estimate	Std. Error	z value	Pr(> z)	Significant?
Our Roots	0.636	0.315	2.019	0.043	Yes
Planting Year	0.467	0.308	1.516	0.129	No
Days Post April 1st	0.006	0.003	2.102	0.036	Yes
Percent Impervious	0.010	0.022	0.455	0.649	No
Tree Lawn	1.358	0.470	2.891	0.004	Yes
Percent Black	0.006	0.006	1.115	0.265	No
Median Household Income	-9.2E-06	9.44E-06	-0.973	0.330	No
Unemployment Rate	-0.060	0.040	-1.484	0.138	No
Percent Vacancy	0.042	0.029	1.459	0.144	No
Median Home Value	5.18E-07	2.02E-06	0.256	0.798	No

7 Genera of 33 included Genera were significant: Oak (Quercus), Aspen (Populus), . . .

DV = Level of Dieback	Estimate	Std. Error	t value	Pr(> t)	Significant?
Our Roots	0.123	0.111	1.101	0.271	No
Planting Year	0.252	0.117	2.161	0.031	Yes
Days Post April 1st	0.004	0.000979	4.420	1.14E-05	Yes
Percent Impervious	-0.0004	0.007	-0.055	0.956	No
Tree Lawn	0.029	0.234	0.125	0.901	No
Proper Mulching	-0.043	0.109	-0.394	0.694	No
Improper Mulching	0.158	0.183	0.863	0.388	No
Full Piping	-0.321	0.158	-2.035	0.042	Yes
Lower Trunk Damage	0.276	0.101	2.733	0.006	Yes
Other Damage	0.505	0.099	5.073	5E-07	Yes
Percent Black	-0.001	0.002	-0.509	0.611	No
Median Household Income	-1.7E-06	3.09E-06	-0.551	0.582	No
Percent Vacancy	0.011	0.009	1.207	0.228	No
Median Home Value	-1.8E-07	6.65E-07	-0.273	0.785	No

13 Genera of 33 included Genera were significant: Oak (Quercus), Elm (Ulmus), . . .

The following were **positively** correlated with street tree **survival**...

- Planted in an Our Roots census tract
- Planted in a tree lawn
- Planted later in the planting season

The following were **positively** correlated with **greater crown dieback**...

- Presence of lower trunk damage
- Presence of other damage
- Planted in 2023 rather than 2022
- Planted later in the planting season

The following were **negatively** correlated with **greater crown dieback**...

- Presence of full black corrugated piping

Discussion



Planting date affects survival & dieback



Community engagement & education (Our Roots) improves survival rates



No socioeconomic significance in survival or dieback



Procedural justice – pre-planting decision-making (Myers et al. 2023)



Next Steps



Re-inventory & temporal correlation



Equity analysis



High-low case studies



Thank You!



Contact us at
sbosley@depaul.edu
& jess.vogt@depaul.edu



Funding and support from DePaul University's Environmental Science and Studies Department
& the College of Science and Health Undergraduate Summer Research Program

Urban Forestry Advisory Board update

Last meeting: April 3, 2025

Next meeting: June 5, 2025

Tree Ambassador Program



Meet a Tree Ambassador: Karen Roothaan



Tree Stewardship Through Storytelling with Puerto Rican Cultural Center



Tree Planting Toolkits for Communities

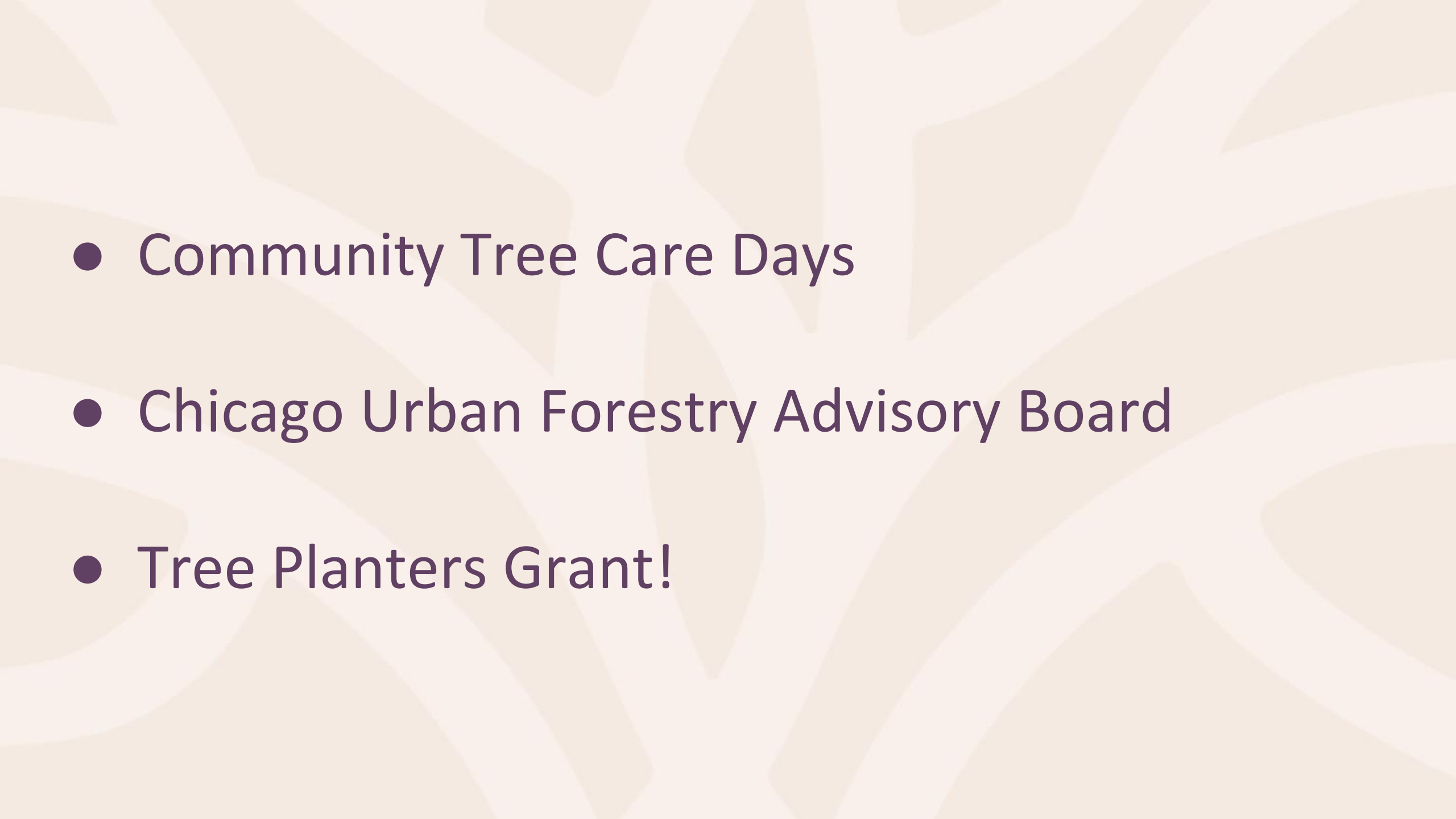
Subscribe to the newsletter for :

- Community Highlights (Interviews, Updates, etc.)
- Resources
- Plantings and Events





Tree Equity Working Group: Openlands Update!

- 
- Community Tree Care Days
 - Chicago Urban Forestry Advisory Board
 - Tree Planters Grant!

Community Tree Care Days!



Come see what it's all about!!



Urban Forestry Advisory Board



Speak for the Trees!



Tree Planters Grants!



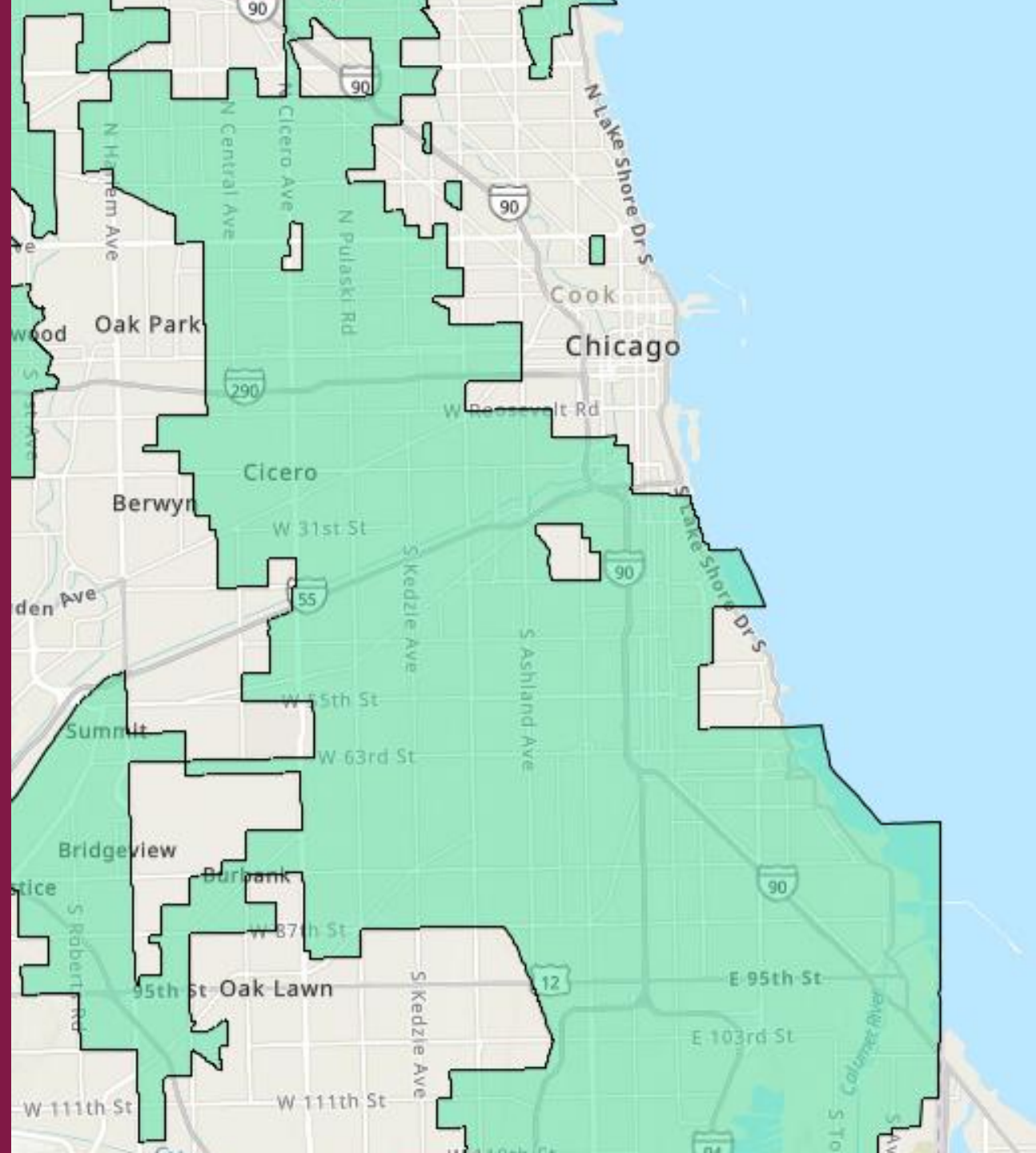
Plant trees with your neighbors!



Tree Planters Grants!



Apply for your own TPG





openlands

Questions?

tebeling@openlands.org

Trees@openlands.org

★ Member updates discussion

- Chicago tree inventory
- Meeting recordings/AI notetakers

Send updates/ideas to
jared.patton@cityofchicago.org



Jared Patton, AICP

Jared.Patton@cityofchicago.org

OurRoots@cityofchicago.org

312-742-0703

City of Chicago

Department of Environment

2 N LaSalle St, Suite 725

Chicago, IL 60602

Chicago.gov/Environment

