

CITY OF TACOMA

# Tree Coupon Program

2019-2020 Season Report



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## Overview

The City of Tacoma established its annual Tree Coupon Program for Tacoma residents in 2012, from fall 2012 through winter 2013, or the “2012-2013 season.” In the 2014-2015 season, the Forest Community of Interest of The Puyallup Watershed Initiative partnered with the City by providing grant funding, which allowed for program expansion to Pierce County residents. In the 2018-2019 season, Tacoma Power joined the partnership, which allowed for an increased discount on trees.

Tree Coupons enable individuals to expand the region’s tree canopy through residential tree plantings. This program makes it affordable for Pierce County residents to purchase and plant tree(s) on their property while supporting local participating garden centers/nurseries. Feedback from participants concludes that many would be unable to consider buying trees if not for the reduced cost offered by this program. Funding and support come from City of Tacoma Surface Water Utility fees, Tacoma Power Renewable and Outreach program funding, the Puyallup Watershed Initiative, and staff time from City of Tacoma Urban Forestry and Tacoma Power Customer Energy Programs.

Pierce County residents can receive a discount on trees at local participating nurseries with a coupon they receive through the Tree Coupon Program. The City mails the tree coupons to residents after they apply through an online request form. Nurseries assume the up-front cost of the discount and invoice the City at the end of the coupon season.

## 2019 - 2020 Season at a Glance

Location of Recipient	Coupons Requested	Coupons Redeemed	% Redeemed	# of Trees	Avg. Trees Per Coupon	Total Value of Coupons
Tacoma	976	253	26%	593	2.3	\$17,790
Pierce County (excl. Tacoma)	1,148	321	36%	828	2.6	\$24,870
<b>TOTAL</b>	<b>1,875</b>	<b>574</b>	<b>31%</b>	<b>1,421</b>	<b>2.5</b>	<b>\$42,630</b>

Summary 2019-2020 data. Purchase rates indicate average number of trees bought per coupon redeemed.

## 2019 - 2020 Season Results

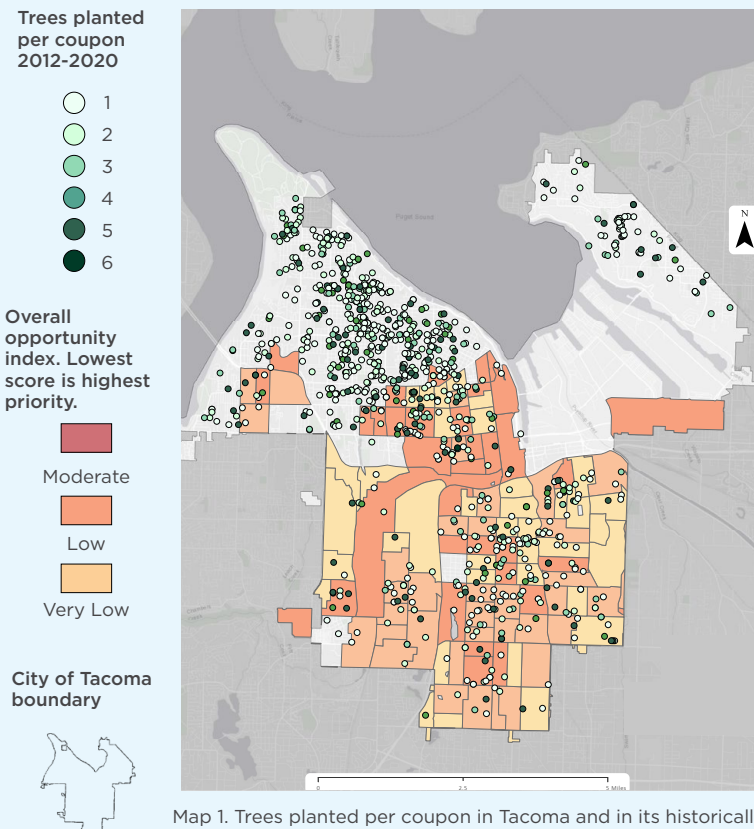
The 2019-2020 program made it possible to plant 1,421 new trees. Residents planted trees at 574 households (253 within the City of Tacoma, 321 in greater Pierce County). There was an overall decrease from the 2018-2019 season, which saw over 2,800 new trees. The reduction in new trees planted was primarily due to:

- Redemption restrictions of COVID-19 in mid to late March 2020, the month when the program has historically seen the most significant redemptions during the season.
- Reduction in the number of trees allowed per coupon from five (2018/2019) to three (2019/2020).
- Providing coupons only through the City of Tacoma online application, instead of nurseries where participants historically received coupons at the point of sale.

## Annual Metrics for Seasons 2012-2013 through 2019-2020

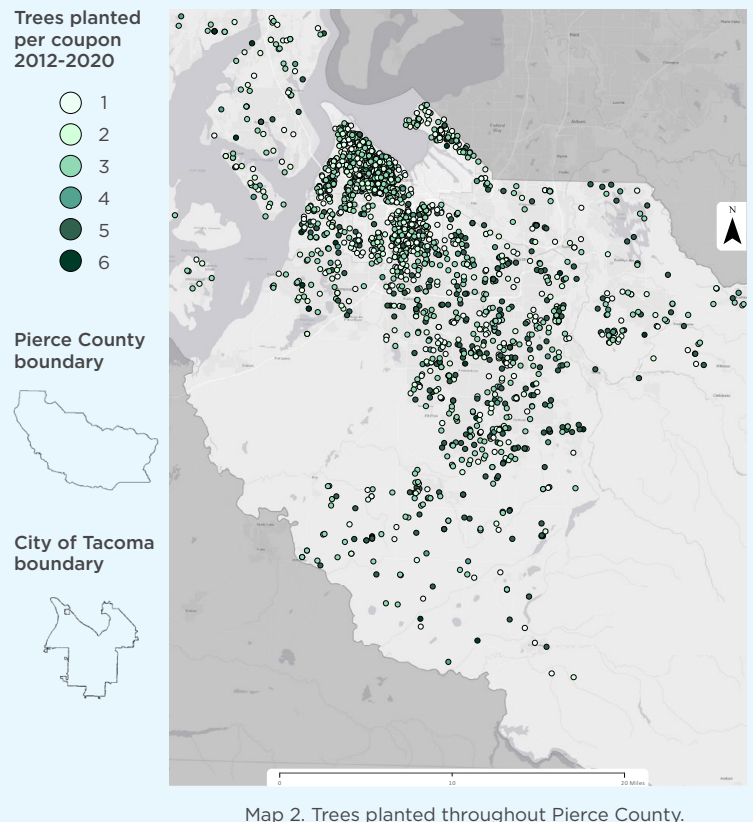
Map 1.

City of Tacoma 2012-2020 Tree Coupon Redemptions

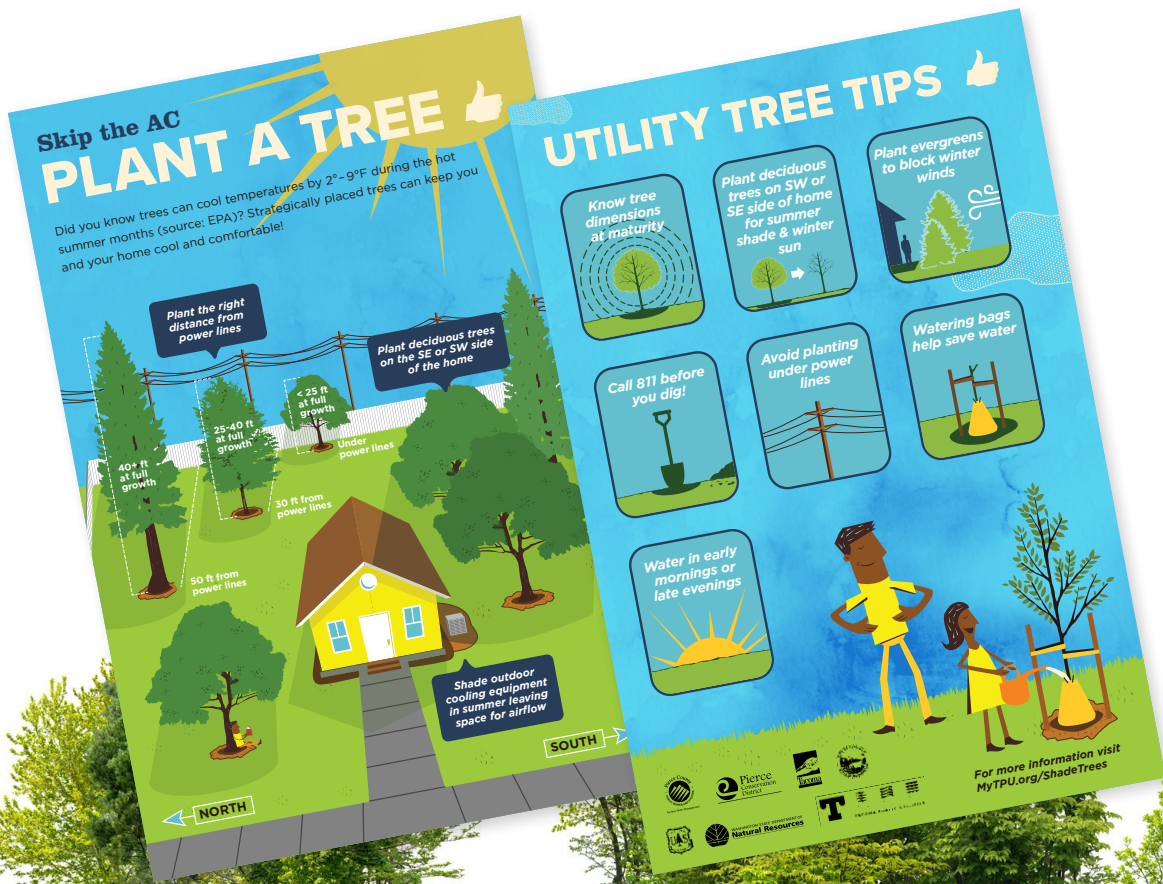


Map 2.

Pierce County 2012-2020 Tree Coupon Redemptions







Year	Coupons Requested	Coupons Redeemed	# of Nurseries	# of Trees	Total Value of Coupons	% Redeemed	Avg. Trees Per Coupon
2012-2013	255	33	2	40	\$970	12.0%	1.21
2013-2014	345	118	3	171	\$4,510	34.2%	1.44
2014-2015*	634	152	2	290	\$5,450	24.0%	1.90
2015-2016**	348	85	3	200	\$3,000	24.4%	2.35
2016-2017	639	195	5	461	\$6,915	30.5%	2.36
2017-2018	796	220	5	511	\$7,665	27.6%	2.32
2018-2019	2,439	938	6	2,817	\$84,510	38.5%	3.25
2019-2020	1,875	575	8	1,421	\$42,630	31.0%	2.47
<b>TOTAL</b>	<b>7,342</b>	<b>2,316</b>	<b>33</b>	<b>5,911</b>	<b>\$155,650</b>	<b>31.5%</b>	<b>2.55</b>

Table 2. Summary of history, trees bought, and dollars reinvested

\* In 2014-2015, number of coupons distributed spiked due to unauthorized copying of coupons.

\*\* In 2015-2016, coupon requests and redemptions were adjusted to correct GIS numbers.

# City of Tacoma Equity Toolkit

Our Environmental Services Department's Strategic Planning Equity Initiative Team created an Equity Toolkit to evaluate City programs, initiatives, and services through an equity lens. The six-step framework encourages:

- Identifying desired results and setting goals to achieve them.
- Collecting and analyzing data.
- Engaging stakeholders with the intent to develop strategies that advance equity.
- Creating an implementation plan.
- Maintaining accountability through performance indicators.
- Gathering feedback from stakeholders and management.

The Equity Toolkit challenges program administrators to go beyond informing the community through outreach, and shift to a culture of greater involvement and collaboration with stakeholders throughout the design and implementation of a program or service.

In June 2020, the Tacoma City Council adopted Resolution 40622 which further strengthens the City's commitment to equity and anti-racist systems transformation. The resolution charges the City to evaluate new and existing programs and services and ensure they equitably serve our community. The Office of Environmental Policy and Sustainability's (OEPS) Urban Forestry workgroup took a closer look at the Tree Coupon Program's service delivery through the Equity Toolkit analysis, to understand how to more equitably serve our community.

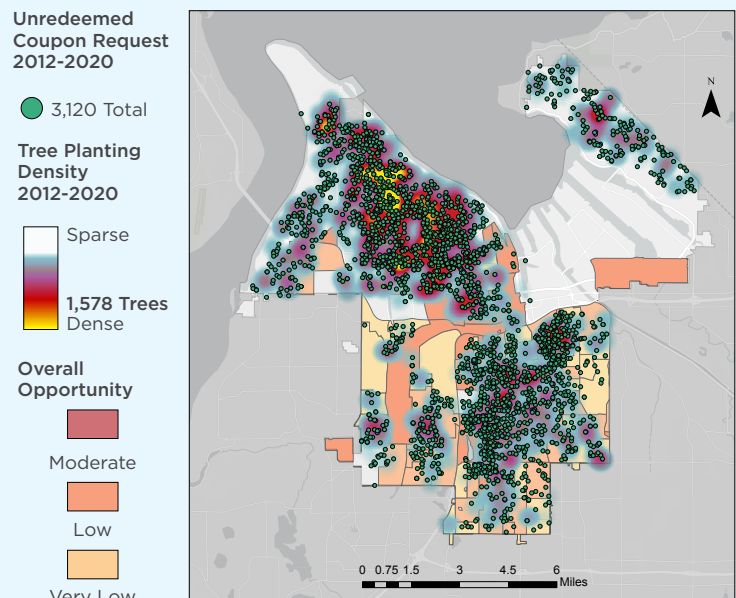
## Equity Analysis Findings

While the Tree Coupon Program is available to anyone regardless of socioeconomic status, the program from 2012-2020 historically had the greatest participation from Tacoma's High Opportunity Neighborhoods (as per Tacoma's Equity Index) based on the location of trees bought and planted. Additionally, data shows considerably more trees bought in census blocks with higher owner-occupied housing compared to renter-occupied housing. Since the beginning of the Tree Coupon Program, **31% of trees bought in Tacoma** and presumably planted, were located in Tacoma's low opportunity neighborhoods. While about **41% of all coupons requested in Tacoma are redeemed in Tacoma's low-opportunity neighborhoods**, we see more than half (**53%**) of all coupons requested in the same geography. This suggests people in lower opportunity neighborhoods have significant interest in the program, but barriers exist to redeeming the coupon and taking full advantage of the maximum trees available per coupon.

## Intended vs. Actual Planting Locations

Map 3. City of Tacoma Tree Coupons

Coupon request (intended planting location) vs. actual planting density and opportunity



Total Coupon Requests: 4,105

Coupons Requests from Low Opportunity Neighborhoods: 2,179 or 53%

Coupons Redeemed from Low Opportunity Neighborhoods: 408 or 41%

Trees Planted in Low Opportunity Neighborhoods: 492 or 31%



## 2012-2020 Tree Planting Density Comparisons for Rentals

The first step to addressing the barriers associated with planting trees for people living in lower-opportunity areas across Tacoma and Pierce County, is to identify area and name them. Through the Equity Toolkit analysis, the potential barriers identified include:

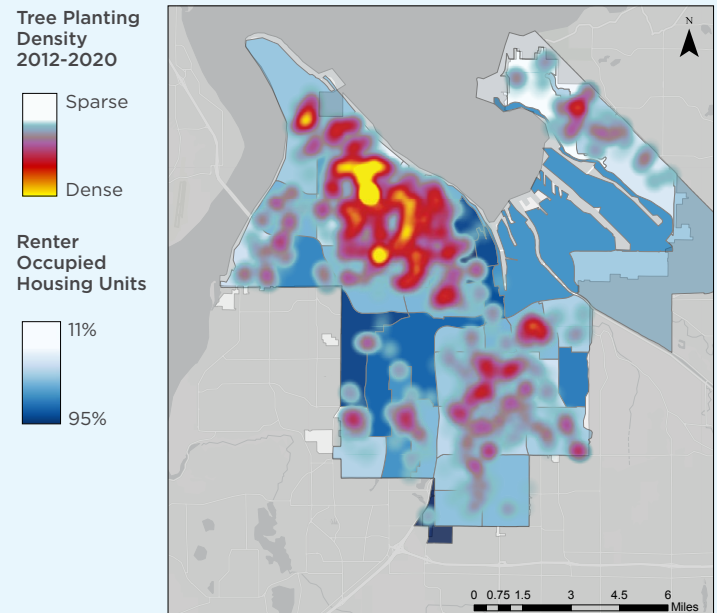
- Tree coupons offer a \$30 discount per tree (up to three trees per household at participating nurseries), but still require further investment and time for people to acquire the tree(s).
- Transportation of landscape-size trees (min. five-gallon containers) from the nursery might present challenges.
- Differently abled and elderly people could experience physical barriers to planting a tree.
- Language barriers might exist for individuals whose first language is not English when the coupon request form, program materials, and other communications are only available in English.

To see a greater number of trees bought and planted in lower-opportunity neighborhoods, we need additional strategies. It should be noted that the Tree Coupon Program does not exist as the sole incentive program for trees in Tacoma and Pierce County. When analyzed in conjunction with the Grit City Trees free street tree program, the Pierce Conservation District Urban Tree Sale, and the work of the Tacoma Tree Foundation, a more equitable picture emerges. For instance, Grit City Trees prioritizes applicants from lower-opportunity areas, provides trees, TAGRO, and other supporting materials at no charge. In many cases, Grit City Trees delivers these materials directly to the applicant's property.

Even with Grit City Trees and other partner programs, a number of recommendations from the Equity Toolkit analysis indicate more ways to increase Tree Coupon Program participation in lower-opportunity areas throughout Tacoma and Pierce County.

**Map 4. City of Tacoma Tree Coupons**

Tree planting density vs. rental housing



## Annual Tree Coupon Survey

In the 2018-2019 Tree Coupon season, we aimed to understand how we could better meet the goals of the program in areas such as:

- Planting trees for energy conservation and storm water mitigation
- Increasing the overall redemption rate of tree coupons
- Improving access to historically underserved communities
- Ensuring survivability of the trees

In the 2019-2020 season, we also surveyed people who requested and redeemed a coupon, and those who requested a coupon but did not redeem it, to learn how we can better refine the program in the future. We also aimed to understand the barriers that prevent people from using the Tree Coupon Program to its full value.

### 2019-2020 Tree Coupon Survey Fast Facts

We surveyed people who redeemed their tree coupons to understand the types of trees they bought, where they planted them, tree survival rates, how people care for their trees, and their communication preferences. We sent 576 surveys and received 244 responses for a 42.4% response rate.

To increase participation, we need to better understand why the 1,301 people who requested coupons did not redeem them.

For the first time, from July 31 to August 24, 2020 we surveyed a total of 951 recipients (working email addresses) who did not redeem their coupons to learn about the barriers they faced.

#### Redeemed Coupon Survey Results



576

surveys sent



244

responses



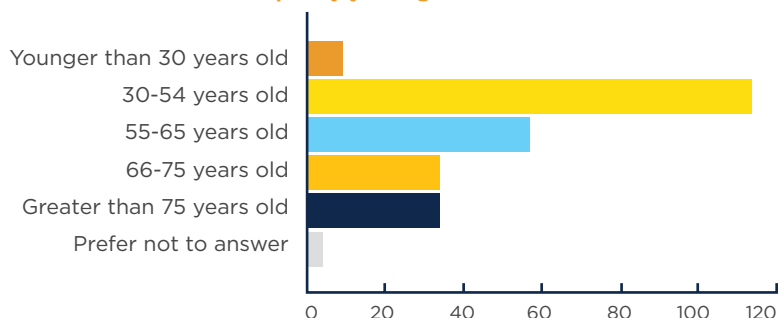
42.4%

response rate

### Demographics\*

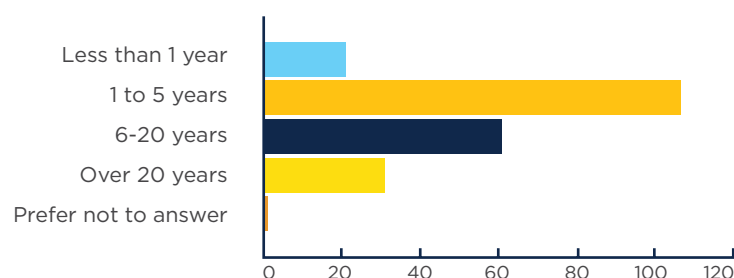
#### Age

QUESTION: Please specify your age.



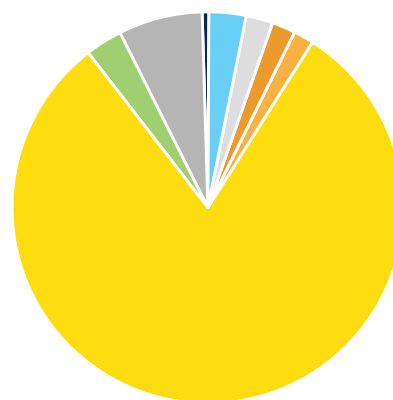
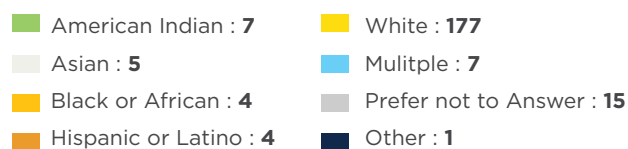
#### Years Living in the Home

QUESTION: How long have you lived at your current residence?



#### Race or Ethnicity

QUESTION: Please specify your race or ethnicity.



\*Data Represents the Redeemed Coupon Survey



## Trees and Planting\*

### Species Bought and Planted

About 77% of trees planted were deciduous (fruit and shade trees), and 20% were evergreens. Evergreen trees are important for providing homes with protection from wind, which helps save energy from heating costs during the winter. They also intercept stormwater during the rainy season, helping to reduce local flooding. Deciduous trees provide shade during the summer, which can help reduce household cooling costs.

**QUESTION: What type of tree(s) did you purchase?**

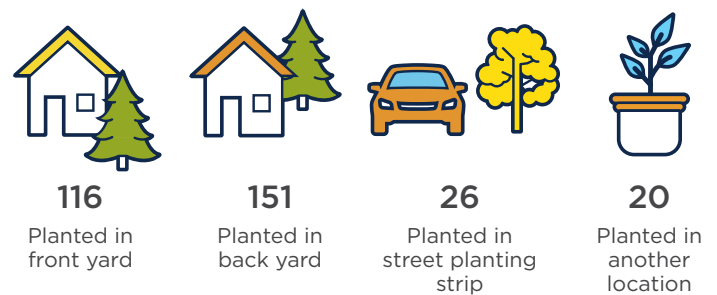


### Planting Location

Planting trees in close proximity to the home is important to actualize energy savings from the tree, as long as the trees are not planted too close, which can become an issue as the tree grows.

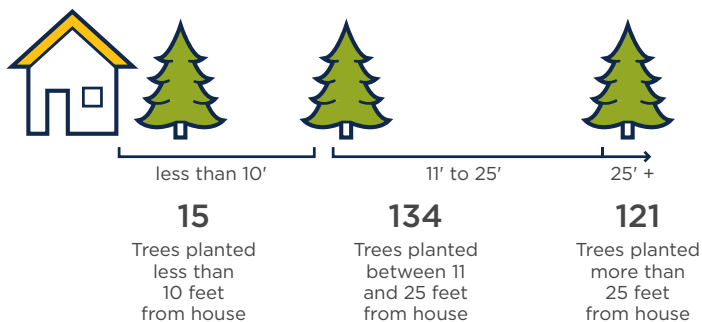
People planted 87% of the trees in their front or backyards and planted 95% of the trees more than 11 feet away from their homes.

**QUESTION: Where did you plant your tree(s)?**



### Proximity of Tree(s) to Home

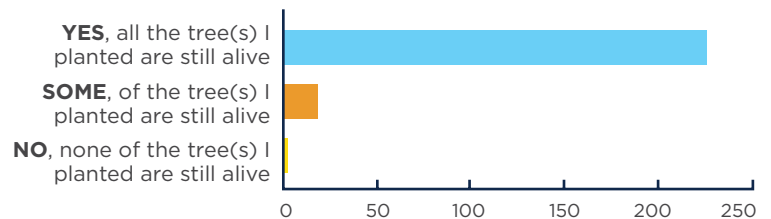
**QUESTION: How close did you plant your tree(s) to your home?**



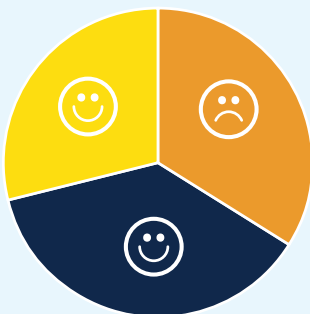
### Tree Survival

Results indicate high survival rates of over 92% of all trees planted with an additional 7.38% indicating some survival. Only 0.41% of trees did not survive.

**QUESTION: Are your tree(s) still alive?**



\*Data Represents the Redeemed Coupon Survey



### Planting Trees With, or Without a \$30 Coupon

The \$30 per tree coupons helped make trees affordable and allowed people to plant more trees.

**QUESTION: Would you have planted tree(s) without the \$30 Tree coupon?**

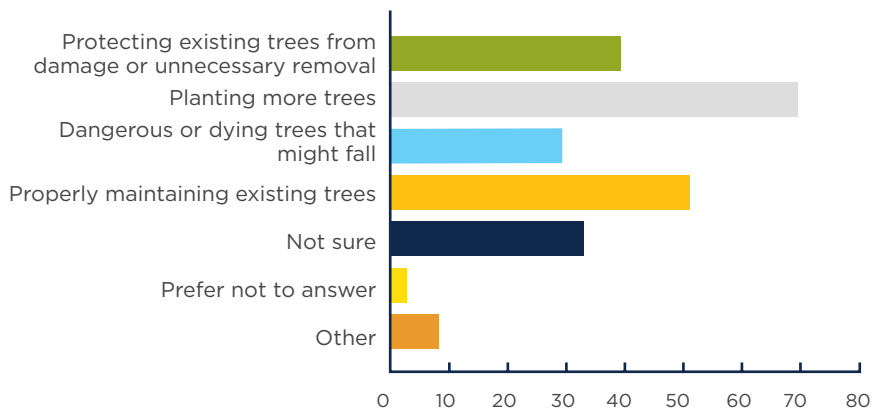
- **YES, but the \$30/tree coupon helped make it more affordable : 70**
- **YES, but the \$30/tree coupon allowed me to plant additional trees : 91**
- **NO, without the \$30/tree coupon I would not have planted any trees : 83**

## Trees and Planting\*

### Urgent Tree Needs in Neighborhoods and the Community

Planting more trees and proper maintenance were the top urgent tree needs identified in neighborhoods and communities. The responses provide insights for developing other programs to address community-identified needs.

**QUESTION: What is the most urgent tree need in your neighborhood or community (please only select one answer)?**



\*Data Represents the Redeemed Coupon Survey

### Reasons for Inability to Redeem a Tree Coupon\*\*

Reasons	# of Reasons	% of Total
COVID 19 restrictions	313	64%
Could not locate coupon	45	9%
Not enough time between October 1, 2019 to March 31, 2020 to redeem	37	8%
Even with the coupon could not afford a tree	33	7%
Forgot about it	31	6%
Could not locate a tree at the nursery that I wanted	25	5%
Lack a vehicle to transport a tree	7	1%
<b>TOTAL</b>	<b>491</b>	<b>100%</b>

### Suggestions to Improve Tree Coupon Redemption\*\*

Suggestions	# of Suggestions	% of total
Extend coupon redemption beyond March 31	318	42%
Provide coupon electronically	156	21%
Various other reasons	100	13%
Have coupons at participating nurseries	82	11%
Provide more guidance on selecting trees	48	6%
Not sure	41	5%
Make coupons more visible	18	2%
<b>TOTAL</b>	<b>763</b>	<b>100%</b>

\*\*Data represents the Unredeemed Coupon Survey

## Looking Ahead

### Recommendations

Considering the challenges of increasing a region's tree canopy, the discount Tree Coupon Program is one of several effective models within the City of Tacoma and Pierce County. Single-family homes make up a significant portion of Pierce County's land. The Tree Coupon Program offers many households the opportunity to afford and plant trees through discounts. Our goal is to significantly increase the tree canopy in Tacoma and Pierce County, and expand participation in the program while minimizing barriers for people who participate but do not redeem coupons.



#### Funding

- Explore opportunities for additional partners throughout Pierce County to participate in the Tree Coupon Program in the near future, expand reach, leverage each other's networks, and ultimately provide more trees to the Pierce County community.
- Without additional funding, we recommend maintaining the 2,000 per year cap on the number of tree coupons we distribute, and to keep the quantity of trees per coupon at three to meet the budgetary needs and funding restrictions of our current partners.



#### Tree Coupon Delivery

- Continue to make tree coupons available online only through the **CityofTacoma.org/TreeCoupons** webpage to minimize entry errors, streamline processes, and reduce time spent handling coupons and sign-up sheets for retailers and the City.
- Allow real-time verification of addresses through GIS to help reduce the number of ineligible entries.
- Allow people who redeemed coupons three plus years ago to participate in the tree coupon program again, to accommodate replacement trees and new ownership.
- A barrier to participation includes losing the tree coupon. Consider using an electronic coupon. One potential concern, however, is the infrastructure needed for some nurseries to participate. Research electronic coupon delivery to see whether nurseries can easily accommodate scanning digital coupons.







## Outreach and Marketing

- Expand communications in underserved neighborhoods and communities, specifically by building partnerships with local organizations, targeting social media advertising based on zip code, and (when possible) providing in-person communication.
- Continue joint marketing efforts with the City to encourage tree coupon applications with TPU customers and Pierce County residents, and work to increase redemption rates greater than 31%.
- Continue “nursery spotlights” to help boost tree sales at local businesses while advertising the Tree Coupon Program.
- Provide additional educational resources to the community to address some of the top needs for trees in our community.









## Equity

- The Tree Coupon Program should serve traditionally overburdened neighborhoods at a higher rate compared to prior seasons and higher opportunity neighborhoods.
- Maintain relatively low administrative cost for the Tree Coupon Program without compromising quality. Ensure Urban Forestry maintains focus and resources on Grit City Trees and other equity-focused programs.
- Translate the online application and communication materials into the top languages spoken in Tacoma and Pierce County. Top six languages include Spanish, Russian, Vietnamese, Korean, Khmer, and Mandarin.
- Social media marketing boosts for Tacoma’s low opportunity neighborhoods based on zip code.
- Utility inserts and other mailed program advertisements should be sent to traditionally overburdened and underserved neighborhoods.
- Build meaningful relationships with community organizations based in Tacoma’s traditionally overburdened and underserved neighborhoods.
- Collaborate further with Pierce County to measure equity with comparable data to Tacoma’s Equity Index with the goal of expanding the equity analysis to the County.



## Testimonials

-  "Awesome opportunity and can't wait to use it again."
-  "Just keep doing what you are doing! We're very thankful for your efforts. Our area is tremendously greener thanks to you!"
-  "I think this is an awesome program and loved working with the nursery staff."
-  "Awesome program; just wish more people knew about it to take advantage of it."
-  "I love this program. I've told so many other people about it. I hope it continues."
-  "Continue it to promote tree planting in our communities...this is what makes Tacoma so great!"