



## 2020 Jersey City Urban And Community Forestry **ANNUAL ACCOMPLISHMENT REPORT**



Photo: One of Jersey City's Largest Ash Trees (*Fraxinus americana*) at Arlington Park

### INTRODUCTION

**The year 2020 was a challenging year** on many accounts; however, our urban forestry program continued to progress. We suffered from many obstacles including a global pandemic, staffing shortages, and severe storms. It took a collaborative team effort between the Department of Public Works, Department of Administration, Shade Tree Committee, and the committed community groups and members that push our government to improve our city's urban forest and promulgate our mission; to ensure the health, safety, and sustainability of Jersey City's community forest and shade trees for the economic, environmental, and aesthetic benefits provided to City residents and visitors.

Many of the accomplishments below would not have been possible without the continued support of the Department of Administration. Especially, the Office of Sustainability which has been integral in the development and innovation of the city's forestry standards, tree inventory, and urban reforestation program. This collaborative effort has yielded tree ordinance revisions, a reversal of net loss in trees which persisted for over 12 years, a professional tree inventory, improved tree maintenance and storm response, and finally innovative community outreach and education.

## TREE ORDINANCE REVISIONS

In 2020, the Jersey City Shade Tree Committee updated and revised Chapter 321 of the Municipal Ordinance “Trees” in collaboration with the Municipal Forester, Office of Sustainability, and the Division of City Planning. This updated ordinance was approved by city council early in January of 2021.



## TREE PLANTING/URBAN REFORESTATION

Since 2019, we have shattered the record for total tree planting with 415 in 2019 and 556 in 2020. The yearly tree planting average prior to 2019 was 143 trees over a 12-year period. Over the same time period, 194 trees a year were removed, on average. We have reversed this net-loss in trees as 245% more trees are being planted than removed. From 2019–2020 an average of 486 trees per year have been planted as opposed to an average of 198 trees removed from 2007–2020. If Jersey City maintains this tree planting initiative, I believe our shade tree canopy will begin to increase instead of decline over the next decade. (Please see attached database showing annual totals from 2007–2020.)



Photo: Tree planting contractors planting *Zelkova serrata* trees at the new City Hall Annex in Fall 2020



The quantity of trees planted is a monumental step; however, more importantly the quality of tree planting and tree maintenance instituted has led to decreased mortality rates, preservation of valuable trees, increases in environmental benefits, and a marked increase in constituent education and approval.

Tree planting efforts have also emphasized planting the right trees, in the right locations. This attention to detail should lower maintenance needs, utility conflicts, and provide a more sustainable and resilient urban forest.



## TREE MAINTENANCE

Jersey City has implemented 2-year guarantee and maintenance requirements for all new tree plantings. This includes watering, mulching, weeding, pruning, and dead tree replacement. This is mandatory for all city contractors as well as independent developers that are required to plant trees within the public right-of-way.



The Division of Park Maintenance continues to maintain all trees located under municipal jurisdiction. This minimally staffed crew was able to remove over 150 dead and/or diseased trees, prune over 300 trees, provide storm response, and assist in planting over 200 trees. Maintenance practices continue to be an area that needs improvement. Larger staffing is needed to proactively manage our shade tree canopy instead of the current reactive program. More training and education are needed to ensure the city's tree workers understand and practice proper arboriculture techniques while working safely.

## HURRICANE ISAIAS



Photo: A large *Platanus x acerfolia* (London Plane Tree) that was uprooted due to Hurricane Isaias in August 2020

Hurricane Isaias which hit Jersey City on August 4th, 2020 caused widespread damage to many city trees. Over 30 trees toppled onto houses, cars, and utility lines. Hundreds of large branches failed causing many streets to be blocked for days.

Once again, a collaborative team effort took place to clean-up the damage and return the city to normal operations. Crews from all divisions of the Department of Public Works worked with law enforcement, fire departments, and utility companies. Tree workers and emergency responders worked 12-16 hour a day for nearly two weeks to address the storm damage.

This level of coordination was truly an accomplishment in 2020 as Jersey City rose to the occasion and was able to address hazardous technical tree emergencies repeatedly without any severe incidents or injury.

## TREE INVENTORY

Jersey City is now conducting its first ever complete professional tree inventory of all trees within the public right-of-way and city parks. This information will guide the structure and goals of future maintenance plans, forest management plans, and special projects.

The Office of Sustainability initiated this project beginning with Students from New Jersey City University (NJCU) in 2019 which were supervised by city employees and collegiate professors. In the spring of 2020, we continued this initiative using student Green Teams procured by Montclair State University. These students were able to map thousands of trees and built an interactive dashboard to display their results.

Seeing the pressing need for a complete professional tree inventory, the Office of Sustainability along with the Municipal Forester decided to take our tree inventory to the next level by contracting the Davey Resource Group to take over where the students left off. Davey inventoried nearly 4,000 trees in 2020 while providing tree risk assessments, and interactive management software. With nearly two-thirds of the city's trees mapped and inventoried in 2020 we intend to finish this professional inventory in 2021. This will be the first ever complete tree inventory for Jersey City.



## PUBLIC EDUCATION AND ENGAGEMENT

- Working with the Office of Sustainability and Department of Public Works 556 trees were planted across the city using Capital funds and CDBG grants. (Please see attached database showing annual totals from 2007-2020.)
- Constituents apply for free trees to be planted at their address. As each person reads through the tree availability list, the community self-educates learning about the different attributes of available tree species (i.e. growth form, size, fall color, flowers, and tolerances to environmental conditions).
- Trees are planted in the most suitable locations possible to prevent unwanted conflicts in the future that could be detrimental to the tree.
- Botanical ID tags are left on the trees so that residents can identify the specific tree species.

### Adopt-a-Tree Program / Biennial Tree Planting



- In collaboration with the Office of Innovation and Office of Sustainability an easy-to-use “Tree Care Guide” was created and distributed both digitally and by mail.
- All residents that received a new tree also received the "Tree Care Guide" to understand how to best care for their new tree and how to report any issues that may arise.

## Tree Care Guide



- Implemented by the Office of Sustainability and students from NJCU and Montclair State Green Teams implemented a student/professional city-wide tree inventory.
- Students monitored by city employees and university professors collected data for street trees including GPS location, species, condition rating, tree pit dimensions, and additional notes.
- At the conclusion of their inventory the students made several presentations to community groups and stakeholders explaining their findings.
- Since the conclusion of the student led inventory the City has continued the tree inventory by contracting the Davey Resource Group and adding tree risk assessments for each tree.
- Once completed, the basic tree information is intended to be made available to the public in an interactive format.

## City-Wide Tree Inventory



## Tree Pest and Disease Outreach

- Jersey City continues to provide information regarding current tree pests and diseases that are threats to our urban forest.
- This information is displayed on digital kiosks, bulletin boards, and the city's webpage.



Photo: Mixed-age forest at Arlington Park, Jersey City



## FUTURE YEAR GOALS



### 2021 Goals

- Digitize forestry permit system (In progress)
- Plant 500+ trees city-wide
- Complete Tree Inventory for all trees under Jersey City Jurisdiction (streets and parks)
- Enforce maintenance and guarantee on recently planted trees
- Revise and Update JC Forestry Standards with Shade Tree Committee
- Develop tree appraisal protocol and add to forestry standard as appendix
- Build and Design “Trees” resource on the city webpage where any resident can find information about anything regarding trees. i.e. how-to guides, permit applications, tree planting applications, forestry standards, FAQs, News and Alerts, etc. This will provide a much better resource to residents and hopefully reduce constituent calls and frustrations.
- Develop management plan for EAB treatments for high valued Ash Trees in JC.

### Conclusion

Regardless of the obstacles, 2020 was overall a successful year for Jersey City Urban Forestry. We were able to achieve some of our Community Forest Management Plan objectives such as building a professional tree inventory, no net loss in trees, tree ordinance revisions, and improved community education and engagement. There are still many factors concerning our urban forest that can be improved upon and these issues will be addressed in future years and outlined in future management plans. 2021 will be a new year with new obstacles; however, we look forward to taking another step forward to building a sustainable and resilient urban forest.



Jersey City Forester pruning trees in Bayside Park July 2020

## TREE MAINTENANCE/PLANTING ANNUAL TOTALS



### Total Trees Removed by Month and Year with Averages 2007-2020

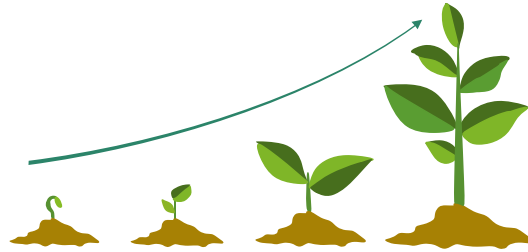
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
2007	25	11	13	9	11	13	8	21	12	17	12	9	161
2008	40	12	19	12	13	20	21	34	39	26	22	14	272
2009	3	10	16	15	18	17	20	35	45	35	15	23	252
2010	12	4	8	14	11	13	10	14	12	15	8	7	128
2011	0	4	18	9	9	12	7	21	7	16	0	10	113
2012	7	10	7	13	24	15	12	18	12	10	2	12	142
2013	17	17	5	15	14	12	13	29	10	11	8	20	171
2014	7	5	12	6	14	12	17	19	3	18	13	20	146
2015	10	5	12	15	21	24	16	15	22	38	23	29	230
2016	39	20	30	47	22	10	18	17	19	21	18	14	275
2017	16	9	43	16	35	14	19	18	38	32	24	41	305
2018	6	4	20	7	7	3	12	4	12	15	19	22	131
2019	32	26	14	14	20	11	23	23	57	30	6	32	288
2020	22	17	10	*	*	*	2	32	15	6	22	28	154
<b>Total</b>	<b>236</b>	<b>154</b>	<b>227</b>	<b>192</b>	<b>219</b>	<b>176</b>	<b>198</b>	<b>300</b>	<b>303</b>	<b>290</b>	<b>192</b>	<b>281</b>	<b>2768</b>
<b>Average</b>	<b>17</b>	<b>11</b>	<b>16</b>	<b>15</b>	<b>17</b>	<b>14</b>	<b>14</b>	<b>21</b>	<b>22</b>	<b>21</b>	<b>14</b>	<b>20</b>	<b>198</b>



### Total Trees Pruned by Month and Year with Averages 2007-2020

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
2007	81	54	79	78	66	79	80	73	64	179	56	45	834
2008	39	44	49	64	34	65	46	43	56	61	51	46	598
2009	46	47	39	39	50	66	35	52	44	80	78	22	598
2010	37	36	27	24	18	46	32	49	28	31	32	20	380
2011	1	12	32	27	31	37	29	32	12	26	3	18	260
2012	38	30	41	37	28	31	35	49	38	42	1	19	389
2013	58	60	35	39	24	39	40	34	41	39	28	35	472
2014	50	6	27	21	25	45	74	31	36	67	65	74	521
2015	35	0	53	80	45	75	79	76	68	69	37	39	656
2016	30	42	47	31	62	73	39	75	54	66	26	40	585
2017	52	57	29	38	11	28	28	46	43	55	28	42	457
2018	40	47	16	62	52	49	83	80	68	49	31	71	648
2019	48	19	54	28	40	51	81	67	44	40	37	58	567
2020	64	59	25	*	*	*	5	4	38	45	46	14	300
<b>Total</b>	<b>619</b>	<b>513</b>	<b>553</b>	<b>568</b>	<b>486</b>	<b>684</b>	<b>686</b>	<b>711</b>	<b>634</b>	<b>749</b>	<b>519</b>	<b>543</b>	<b>7265</b>
<b>Average</b>	<b>43</b>	<b>34</b>	<b>41</b>	<b>44</b>	<b>37</b>	<b>55</b>	<b>52</b>	<b>54</b>	<b>46</b>	<b>54</b>	<b>36</b>	<b>41</b>	<b>519</b>

\*\*\* Note: City Closure during Covid -19 Pandemic



## Total Trees Planted by Year 2007- 2020

Year	Trees Planted in Spring: Capital Funded	Trees Planted in Fall: Capital Funded	Other Trees Planted: Grant Funded	Total # of Trees Planted
2007	No data	No Data		178
2008	No data	No Data		204
2009	No data	No Data		224
2010	No data	No Data		120
2011	No data	No Data		95
2012	No data	No Data		75
2013	No data	No Data		11
2014	No data	No Data		74
2015	89	45		135
2016	211	94		305
2017	54	71		125
2018	62	No Data	155	217
2019	135	125	155	415
2020	226	230	100	556
<b>Total</b>	<b>777</b>	<b>565</b>	<b>410</b>	<b>2734</b>
<b>Average</b>	<b>130</b>	<b>113</b>	<b>137</b>	<b>195</b>