



City of Kirkwood, Missouri Tree Inventory Summary Report January 13, 2025

Report Summary

On February 8, 2017 the City of Kirkwood published a Tree Inventory Summary Report based on the findings of a complete inventory of Kirkwood’s 9,982 public trees. The purpose of this report is to review how the 2025 inventory has changed since the 2017 report, to track the overall trajectory and health of Kirkwood’s urban forest, and to provide information to the Forestry Division and Kirkwood Urban Forestry Committee on management strategies going forward.

Public Tree Population

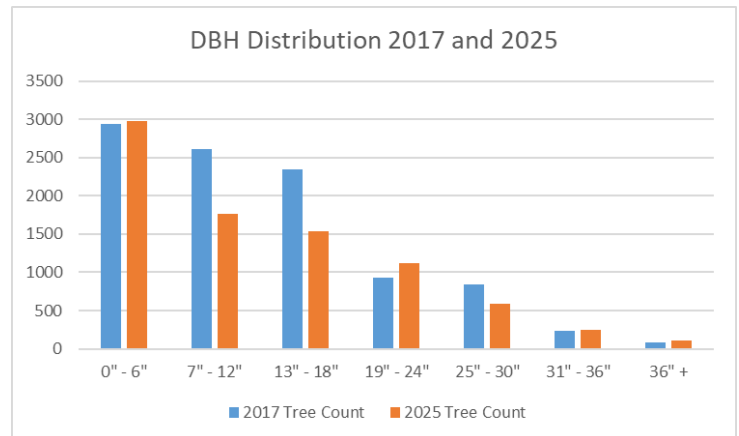
The inventory from 2025 was analyzed and compared to the inventory data presented in the 2017 Tree Inventory Report. In 2025, there were 8,328 public trees inventoried. This is a net decrease of 1,654 trees compared to the 2017 inventory, or a net loss of 206 trees a year. A net decrease indicates the removal of public trees is outpacing the replacement rate, or that the replacement trees are not surviving the establishment period and are being removed.

	2017	2025
Population	9982	8328

Size Characteristics

The general size of a tree provides insight into the age and value of the tree. The diameter at breast height (DBH) is determined by the diameter of the tree at 4.5 feet above grade. The data indicates the majority of tree removals between 2017 and 2025 were between 7 and 18 inches DBH.

DBH (inches)	Tree Count (2017)	Tree Count (2025)	Change
0" - 6"	2941	2977	+36
7" - 12"	2608	1763	-845
13" - 18"	2347	1534	-813
19" - 24"	928	1116	+188
25" - 30"	838	584	-254
31" - 36"	232	248	+16
36" +	88	106	+18
Total	9982	8328	-1654





Ash Tree Population

Emerald Ash Borer (EAB) has devastated ash populations across the country, and it is important to know the number, location, and percentage of the total tree population for the ash trees maintained by the city.

In the 2017 Tree Inventory Summary Report, there were 687 ash trees in the Public Tree inventory, which was 6.8% of the total public tree population. In 2025, there were 222 ash trees in the inventory. This is a decrease of 465 trees. The ash species is now 2.7% of the total tree inventory. The systematic removal of all untreated ash is planned to continue.

Tree Removal by Species

The species population between the 2017 Tree Inventory Summary Report were compared to the species in the 2025 inventory, and the following tables were created. The first table displays species where there was a net decrease in total population. The data indicates pin oak, ash spp., Callery pear, silver maple, and sweetgum had the most removals. These are also the most common species in Kirkwood. Norway maple had the highest relative rate of removal, with a population decrease of 79%.

The second table displays species with a net increase in population. The data indicates arborvitae, swamp white oak, Rose-of-Sharon, black tupelo, and American hornbeam were the most public planted species, or that they were inventoried at a later date.

Species	2017 Species Count	2025 Species Count	Change
Quercus palustris	995	688	-307
Fraxinus americana	392	127	-265
Pyrus calleryana	595	362	-233
Acer saccharinum	424	208	-216
Fraxinus pennsylvanica	293	95	-198
Liquidambar styraciflua	679	517	-162
Acer platanoides	158	33	-125
Pinus strobus	352	231	-121
Ulmus americana	194	93	-101
Quercus alba	144	76	-68
Malus floribunda	218	166	-52
Gleditsia triacanthos f. ine	131	80	-51
Quercus spp.	52	5	-47
Juglans nigra	140	94	-46
Cornus florida	215	179	-36
Ulmus rubra	49	13	-36
Prunus cerasifera	58	26	-32
Juniperus chinensis	36	5	-31
Catalpa speciosa	96	69	-27
Picea pungens glauca	90	63	-27
Pinus nigra	59	32	-27
Robinia pseudoacacia	57	31	-26
Prunus serotina	49	25	-24
Acer negundo	47	23	-24
Albizia julibrissin	32	9	-23

Species	2017 Species Count	2025 Species Count	Change
Thuja occidentalis	58	161	103
Quercus bicolor	106	180	74
Hibiscus syriacus	5	74	69
Nyssa sylvatica	41	104	63
Carpinus caroliniana	17	79	62
Taxus cuspidata	2	61	59
Cercis canadensis	511	563	52
Ginkgo biloba	83	125	42
Taxodium distichum	79	116	37
Gleditsia triacanthos	2	34	32
Ulmus spp.	17	47	30
Juniperus virginiana	353	381	28
Celtis occidentalis	88	115	27
Quercus stellata	92	115	23
Quercus velutina	27	49	22
Prunus x yedoensis	7	28	21



City of Kirkwood

Forestry Division

Phone: (314)984-5907

www.kirkwoodmo.org/forestry

345 South Fillmore Ave

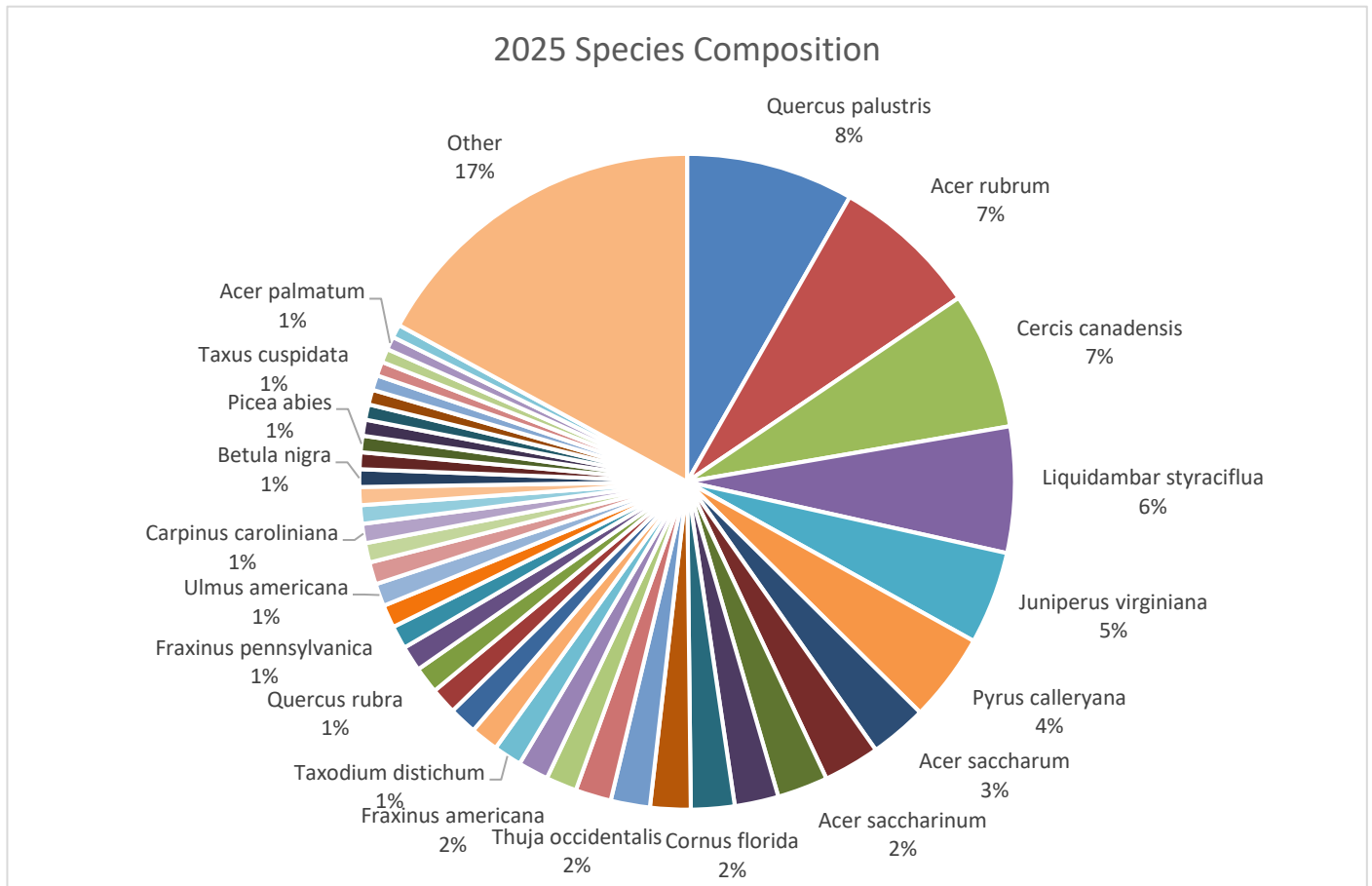
Kirkwood, MO 63122

slybm@kirkwoodmo.org

Public Tree Species Composition

Species composition is one factor that influences the overall sustainability of the urban forest. Historical widespread diseases and pests, such as Dutch elm disease and Emerald Ash Borer, show the importance of having a diverse species composition. When a tree population is heavily represented by a handful of species, disease introductions can be disastrous to the urban forest and community.

The 2025 Public Tree Inventory’s species composition is depicted in the pie graph below. Pin oak, red maple, eastern redbud, American sweetgum, and eastern red-cedar are the top 5 most common species in Kirkwood’s right-of-way. Overall, the current species composition is well mixed, especially since many of the most common species are no longer recommended to be planted in the public right-of-way.



The following pages list every tree species inventoried in Kirkwood’s right-of-way. The list contains the population from 2017, the population from 2025, and the net change over the past 8 years.

**City of Kirkwood**Forestry Division
Phone: (314)984-5907www.kirkwoodmo.org/forestry345 South Fillmore Ave
Kirkwood, MO 63122
slybm@kirkwoodmo.org

Common Name	Species	2017 Species Count	2025 Species Count	Net Change
White Fir	<i>Abies concolor</i>	7	4	-3
Trident Maple	<i>Acer buergeranum</i>	1	2	1
Amur Maple	<i>Acer ginnala</i>	7	9	2
Paperbark Maple	<i>Acer griseum</i>	8	10	2
Miyabe Maple	<i>Acer miyabei</i>	3	4	1
Box Elder	<i>Acer negundo</i>	47	23	-24
Japanese Maple	<i>Acer palmatum</i>	38	54	16
Norway Maple	<i>Acer platanoides</i>	158	33	-125
Crimson King Maple	<i>Acer platanoides 'Crimson King'</i>	7	2	-5
Red Maple	<i>Acer rubrum</i>	610	605	-5
Silver Maple	<i>Acer saccharinum</i>	424	208	-216
Sugar Maple	<i>Acer saccharum</i>	255	235	-20
Freeman Maple	<i>Acer x freemanii</i>	45	42	-3
Ohio Buckeye	<i>Aesculus glabra</i>	4	8	4
Common Horsechestnut	<i>Aesculus hippocastanum</i>	2	3	1
Red horsechestnut 'Fort McNair'	<i>Aesculus x carnea 'Fort McNair'</i>	0	12	12
Tree of Heaven	<i>Ailanthus altissima</i>	35	47	12
Mimosa; Silk Tree	<i>Albizia julibrissin</i>	32	9	-23
Black alder	<i>Alnus glutinosa</i>	0	1	1
Downy Serviceberry	<i>Amelanchier arborea</i>	9	24	15
Allegheny Serviceberry	<i>Amelanchier laevis</i>	3	8	5
River Birch	<i>Betula nigra</i>	62	72	10
European White Birch	<i>Betula pendula</i>	1	3	2
European Hornbeam	<i>Carpinus betulus</i>	24	39	15
Upright European Hornbeam	<i>Carpinus betulus 'Fastigiata'</i>	7	3	-4
American Hornbeam	<i>Carpinus caroliniana</i>	17	79	62
Bitternut Hickory	<i>Carya cordiformis</i>	1	1	0
Pignut Hickory	<i>Carya glabra</i>	6	6	0
Pecan	<i>Carya illinoensis</i>	2	5	3
Shagbark Hickory	<i>Carya ovata</i>	16	29	13
Mockernut Hickory	<i>Carya tomentosa</i>	5	9	4
Chinese Chestnut	<i>Castanea mollissima</i>	3	3	0
Western Catalpa	<i>Catalpa speciosa</i>	96	69	-27
Atlas Cedar	<i>Cedrus atlantica</i>	4	5	1
Weeping Green Atlas Cedar	<i>Cedrus atlantica 'Pendula'</i>	2	2	0
Deodar Cedar	<i>Cedrus deodara</i>	1	1	0
Sugarberry	<i>Celtis laevigata</i>	25	25	0
Common Hackberry	<i>Celtis occidentalis</i>	88	115	27
Eastern Redbud	<i>Cercis canadensis</i>	511	563	52

**City of Kirkwood**Forestry Division
Phone: (314)984-5907www.kirkwoodmo.org/forestry345 South Fillmore Ave
Kirkwood, MO 63122
slybm@kirkwoodmo.org

Common Name	Species	2017 Species Count	2025 Species Count	Net Change
Sawara False Cypress	<i>Chamaecyparis pisifera</i>	1	3	2
Chinese Fringe Tree	<i>Chionanthus retusus</i>	4	14	10
American Yellowwood	<i>Cladrastis kentukea</i>	2	12	10
Alternate-Leaf Dogwood	<i>Cornus alternifolia</i>	3	2	-1
Eastern Dogwood	<i>Cornus florida</i>	215	179	-36
Kousa Dogwood	<i>Cornus kousa</i>	13	19	6
Corkscrew Hazel	<i>Corylus avellana</i>	2	5	3
Turkish filbert	<i>Corylus colurna</i>	0	4	4
Smoke Tree	<i>Cotinus coggygria</i>	7	1	-6
Thornless Hawthorn	<i>Crataegus crus-galli f. inermis</i>	8	2	-6
Washington Hawthorn	<i>Crataegus phaenopyrum</i>	1	5	4
Green hawthorn 'Winter King'	<i>Crataegus viridis 'Winter King'</i>	0	6	6
Japanese Cedar	<i>Cryptomeria japonica</i>	2	3	1
Arizona cypress	<i>Cupressus arizonica var. glabra</i>	0	1	1
Italian Cypress	<i>Cupressus sempervirens</i>	1	1	0
American Persimmon	<i>Diospyros virginiana</i>	23	39	16
Euonymus spp.	<i>Euonymus spp.</i>	0	3	3
American Beech	<i>Fagus grandifolia</i>	2	3	1
European Beech	<i>Fagus sylvatica</i>	2	1	-1
White Ash	<i>Fraxinus americana</i>	392	127	-265
Green ash	<i>Fraxinus pennsylvanica</i>	293	95	-198
Ginkgo	<i>Ginkgo biloba</i>	83	125	42
Ginkgo 'Princeton Sentry'	<i>Ginkgo biloba 'Princeton Sentry'</i>	1	6	5
Honeylocust	<i>Gleditsia triacanthos</i>	2	34	32
Honeylocust (thornless)	<i>Gleditsia triacanthos f. inermis</i>	131	80	-51
Kentucky coffeetree	<i>Gymnocladus dioica</i>	19	17	-2
Witchhazel	<i>Hamamelis x intermedia</i>	1	1	0
Rose-of-Sharon	<i>Hibiscus syriacus</i>	5	74	69
Hydrangea spp.	<i>Hydrangea spp.</i>	0	5	5
Chinese Holly	<i>Ilex cornuta</i>	9	1	-8
Decidious holly	<i>Ilex decidua</i>	0	2	2
American holly	<i>Ilex opaca</i>	56	66	10
Holly sop.	<i>Ilex spp.</i>	6	5	-1
Black walnut	<i>Juglans nigra</i>	140	94	-46
English walnut	<i>Juglans regia</i>	2	2	0
Chinese juniper	<i>Juniperus chinensis</i>	36	5	-31
Eastern red-cedar	<i>Juniperus virginiana</i>	353	381	28
Goldenrain tree	<i>Koelreuteria paniculata</i>	24	28	4
Crape Myrtle	<i>Lagerstroemia indica</i>	38	58	20

**City of Kirkwood**Forestry Division
Phone: (314)984-5907www.kirkwoodmo.org/forestry345 South Fillmore Ave
Kirkwood, MO 63122
slybm@kirkwoodmo.org

Common Name	Species	2017 Species Count	2025 Species Count	Net Change
American sweetgum	<i>Liquidambar styraciflua</i>	679	517	-162
Tulip tree	<i>Liriodendron tulipifera</i>	68	54	-14
Honeysuckle spp.	<i>Lonicera spp.</i>	0	1	1
Osage orange	<i>Maclura pomifera</i>	46	56	10
Magnolia, Southern	<i>Magnolia grandiflora</i>	36	32	-4
Magnolia, Saucer	<i>Magnolia soulangiana</i>	48	61	13
Magnolia, Star	<i>Magnolia stellata</i>	5	7	2
Magnolia, Bay	<i>Magnolia virginiana</i>	14	23	9
Crabapple spp.	<i>Malus floribunda</i>	218	166	-52
Apple spp.	<i>Malus spp</i>	3	2	-1
Dawn Redwood	<i>Metasequoia glyptostroboides</i>	5	1	-4
Mulberry spp.	<i>Morus spp.</i>	53	41	-12
Black tupelo	<i>Nyssa sylvatica</i>	41	104	63
Ironwood	<i>Ostrya virginiana</i>	3	2	-1
Other	<i>Other Tree</i>	0	1	1
Persian ironwood	<i>Parrotia persica</i>	0	7	7
Amur corktree	<i>Phellodendron amurense</i>	16	15	-1
Norway spruce	<i>Picea abies</i>	62	67	5
White spruce	<i>Picea glauca</i>	7	16	9
Dwarf Alberta spruce	<i>Picea glauca albertiana</i>	7	15	8
Colorado blue spruce	<i>Picea pungens glauca</i>	90	63	-27
Shortleaf pine	<i>Pinus echinata</i>	2	6	4
Mugo pine	<i>Pinus mugo mugo</i>	1	16	15
Austrian black pine	<i>Pinus nigra</i>	59	32	-27
Ponderosa pine	<i>Pinus ponderosa</i>	3	1	-2
Pine spp.	<i>Pinus spp</i>	2	4	2
White pine	<i>Pinus strobus</i>	352	231	-121
Scotch pine	<i>Pinus sylvestris</i>	19	13	-6
Loblolly pine	<i>Pinus taeda</i>	10	12	2
London planetree	<i>Platanus acerifolia</i>	25	11	-14
American sycamore	<i>Platanus occidentalis</i>	113	109	-4
White poplar	<i>Populus alba</i>	4	1	-3
Balsam poplar	<i>Populus balsamifera</i>	0	1	1
Cottonwood	<i>Populus deltoides</i>	12	7	-5
Wild cherry	<i>Prunus avium</i>	0	7	7
Purple-leaf plum	<i>Prunus cerasifera</i>	58	26	-32
Plum	<i>Prunus domestica</i>	1	3	2
Bird cherry	<i>Prunus padus</i>	0	1	1

**City of Kirkwood**

Forestry Division

Phone: (314)984-5907

www.kirkwoodmo.org/forestry

345 South Fillmore Ave

Kirkwood, MO 63122

slybm@kirkwoodmo.org

Common Name	Species	2017 Species Count	2025 Species Count	Net Change
Sand cherry	<i>Prunus pumila</i>	0	1	1
Black cherry	<i>Prunus serotina</i>	49	25	-24
Japanese flowering cherry	<i>Prunus serrulata</i>	44	32	-12
Kwanzan flowering cherry	<i>Prunus serrulata</i> 'Kwanzan'	13	17	4
Cherry spp.	<i>Prunus species</i>	17	10	-7
Weeping Higan cherry	<i>Prunus subhirtella</i> 'Pendula'	4	4	0
Yoshino cherry	<i>Prunus x yedoensis</i>	7	28	21
Douglas-fir	<i>Pseudotsuga menziesii</i>	13	4	-9
Callary pear	<i>Pyrus calleryana</i>	595	362	-233
Common pear	<i>Pyrus communis</i>	4	1	-3
Sawtooth Oak	<i>Quercus acutissima</i>	17	1	-16
White Oak	<i>Quercus alba</i>	144	76	-68
Swamp White Oak	<i>Quercus bicolor</i>	106	180	74
Scarlet oak	<i>Quercus coccinea</i>	0	6	6
Shingle Oak	<i>Quercus imbricaria</i>	130	147	17
Bur Oak	<i>Quercus macrocarpa</i>	33	48	15
Blackjack Oak	<i>Quercus marilandica</i>	7	11	4
Swamp Chestnut Oak	<i>Quercus michauxii</i>	8	2	-6
Chinquapin Oak	<i>Quercus muehlenbergii</i>	2	10	8
Water Oak	<i>Quercus nigra</i>	1	1	0
Pin Oak	<i>Quercus palustris</i>	995	688	-307
Willow Oak	<i>Quercus phellos</i>	17	16	-1
English Oak	<i>Quercus robur</i>	4	2	-2
Upright English Oak	<i>Quercus robur</i> 'Fastigiata'	1	6	5
Red oak	<i>Quercus rubra</i>	116	109	-7
Shumard oak	<i>Quercus shumardii</i>	5	8	3
Oak spp.	<i>Quercus spp.</i>	52	5	-47
Post oak	<i>Quercus stellata</i>	92	115	23
Nuttall oak	<i>Quercus texana</i>	0	2	2
Black oak	<i>Quercus velutina</i>	27	49	22
English oak 'Regal Prince'	<i>Quercus x warei</i>	0	1	1
Common Buckthorn	<i>Rhamnus cathartica</i>	1	1	0
Staghorn Sumac	<i>Rhus typhina</i>	1	1	0
Black locust	<i>Robinia pseudoacacia</i>	57	31	-26
Weeping Willow	<i>Salix babylonica</i>	2	1	-1
Pussy Willow	<i>Salix discolor</i>	1	2	1
Sassafras	<i>Sassafras albidum</i>	1	7	6
Japanese Pagoda Tree	<i>Styphnolobium japonicum</i>	1	2	1
Japanese Snowbell Tree	<i>Styrax japonicus</i>	1	1	0



City of Kirkwood

Forestry Division

Phone: (314)984-5907

www.kirkwoodmo.org/forestry

345 South Fillmore Ave

Kirkwood, MO 63122

slybm@kirkwoodmo.org

Common Name	Species	2017 Species Count	2025 Species Count	Net Change
Japanese Tree Lilac	<i>Syringa reticulata</i>	6	19	13
Bald Cypress	<i>Taxodium distichum</i>	79	116	37
Japanese Yew	<i>Taxus cuspidata</i>	2	61	59
American Arborvitae	<i>Thuja occidentalis</i>	58	161	103
American Linden	<i>Tilia americana</i>	1	11	10
Littleleaf Linden	<i>Tilia cordata</i>	65	48	-17
Silver Linden	<i>Tilia tomentosa</i>	3	1	-2
Eastern Hemlock	<i>Tsuga canadensis</i>	16	3	-13
American Elm	<i>Ulmus americana</i>	194	93	-101
Chinese Elm	<i>Ulmus parvifolia</i>	7	11	4
Siberian Elm	<i>Ulmus pumila</i>	72	91	19
Slippery Elm	<i>Ulmus rubra</i>	49	13	-36
Elm Species	<i>Ulmus spp.</i>	17	47	30
Hybrid Elm	<i>Ulmus x species</i>	1	3	2
Sawleaf Zelkova	<i>Zelkova serrata</i>	17	24	7

Vacant Public Tree Planting Sites

Vacant planting sites are areas in the right-of-way where a tree was removed, or areas where there has never been a tree planted. Tracking these sites helps staff plan for future plantings, and to identify sections of Kirkwood where tree populations are disproportionately low. In 2025, the inventory had a total of 2,819 vacant planting sites. Of these sites, 1,862 (66%) were identified as large or medium planting sites. With new public tree planting guidelines set forth in the Tree Manual, the vacant planting site totals may change during inventory updates.

Category	Count
Proposed Site - Large	770
Proposed Site - Medium	1092
Proposed Site - Small	957
Grand Total	2819



Future Management Plan

Based on the findings of this report, the following are strategies the Forestry Division will take to increase the overall sustainability and success of Kirkwood's urban forestry program.

1. City-wide Public Tree Inventory Updates

The public tree inventory will be updated on an 8 year cycle. This will align with the district pruning cycle currently in place. Forestry staff will update the diameter of all public trees in the district scheduled to be pruned the following year. In addition to this, the inventory will be updated on a daily basis to account for specific tree removal and plantings.

2. Increase Public Tree Planting Numbers

To combat the decreasing public tree population, tree planting numbers need to be increased. To receive the most benefits of this increased tree planting, medium and large growing trees should be prioritized where growing space and overhead clearance is available.

3. Focus on Species Diversity and Sustainability

Special attention should be given to what species are planted in Kirkwood in order to plan for a sustainable future for the urban forest. Many of the current tree removals occur because of past planting mistakes such as planting monocultures, planting trees too large for the growing space, and planting trees not adapted to the harsh conditions of the modern, urban environment. This may mean communicating with local tree nurseries to increase species selection and availability. Species native to southern US states may also need to be assessed for planting in Kirkwood to combat potential warming temperatures over the next 50 – 100 years.