

# 2021 Tree Inventory Executive Summary



**Bensenville**  
Park District

Prepared By:

Leslie Delles, Urban Forestry Consultant  
ISA Certified Municipal Arborist # IL 9199-AM TRAQ

Cherry Countryman, Urban Forestry Technician  
ISA Certified Arborist #IL 9789-A TRAQ  
April 8, 2021



## Introduction

On March 2, 2021, Certified Arborists from Great Lakes Urban Forestry Management (GLUFM) began collecting data for a comprehensive tree inventory of the Bensenville Park District (BPD) system. This inventory resulted in a total count of 4,129 trees. This executive summary is a brief statistical overview of the inventory data and will address some of our observations, as well as some potential mitigation measures and other recommendations. GLUFM is pleased to provide its tree inventory and GIS mapping services along with this summary and analysis of the tree population. BPD is now equipped to use this valuable information to address short term concerns, long term management considerations, and overall planning objectives.

## Collection Parameters

The following is a detailed description of data that was collected for each tree.

### PARK NAME

The name of the park for which the data was being collected.

### X and Y

These are the X and Y coordinates of the tree location, recorded as WGS 84 coordinates coordinate system in decimal degrees.

### TREE STATUS

For this inventory, the status field indicates that the site is home to an Active Tree or a Stump.

### SPECIES

All tree species are listed using common and botanical names and were identified to the species level. Specific cultivars, hybrids, or varieties were not identified.

### STEMS

The Stems field indicates how many stems diverge below 4.5 feet above the ground.

### DBH

Trees were measured using DBH (Diameter at Breast Height, 4.5” above ground level), a standard forestry measure of tree diameter, using a forester’s DBH tape. This method of measurement provides the most accurate reading of tree diameter, which can be highly variable depending on the dimension in which it is linearly measured.

### CONDITION

Condition ratings are based on a normal standard distribution. Much like in academic circles, we expect the greatest number of trees in the average category (3), fewer trees in the good and poor categories (2 and 4, respectively), and the fewest number of trees in the excellent and very poor categories (1 and 5, respectively). Condition is a continuous variable, meaning that anywhere along the curve we supplied, you should be able to estimate the number of trees that are (e.g.) a 2.5 condition, even though condition was only recorded as whole number integers. (see table below)

<b>Condition 1</b>	<b>Specimen</b> – Tree has no observable defects, wounds, diseases, and has textbook perfect form for the species. In addition, since young trees have a tendency to be trouble free and homogenous, a condition 1 tree must by definition be greater than 16” DBH. These are legacy trees, and as such are rare.
<b>Condition 2</b>	<b>Above Average</b> – Tree may have a small amount of deadwood, or a very limited number of minor defects. The overall form of the tree must be good, and consistent for the species in question. These trees should also be larger than 8” DBH for the reason listed above. Often the difference between condition 2 and 3 is form or growth habit.
<b>Condition 3</b>	<b>Average</b> – Tree has moderate but acceptable amounts if deadwood, wounds, or other defects, but is generally healthy. A wide variety of forms is acceptable for this group, which is meant to define the middle ground around which better or worse trees can be defined and identified.
<b>Condition 4</b>	<b>Below Average</b> – Tree has defects, deadwood, wounds, disease, etc. that have to the potential to cause a need for removal. Very poor form or architecture can put an otherwise healthy tree in this category as well, due to the potential for tree or root failure.
<b>Condition 5</b>	<b>Very Poor/ Dead</b> – Tree must be removed. Physical or Health defects are too far gone for the tree to be reasonably saved. Like condition 1 trees, these are relatively rare, as generally trees that are getting to this level are removed before they can get there.

## ARBORIST RECOMMENDATION

Maintenance recommendations are provided to assist in managing the tree population. They are very general guidelines for pruning and care, and we find they are helpful for managing and prioritizing maintenance.

<b>Prune- Cycle</b>	Tree is in good health, and will require standard pruning or maintenance on a 3-5 year cycle
<b>Prune- Train</b>	Tree is within the 1-6 inch DBH range and requires structural pruning to establish good architecture
<b>Prune- Priority</b>	Tree has not been properly pruned during its developmental years, has suffered damage, is overgrown, has low risk deadwood, or for other reasons is in need of pruning sooner than a 3-5 year standard cycle
<b>Prune- Dead Limb</b>	Specific dead limb(s) not qualifying as moderate or severe deadwood by percentage
<b>Remove- Standard</b>	Tree must be removed, but does not pose an immediate elevated risk situation; should be removed within 1-3 years
<b>Remove- Low Priority</b>	Tree is recommended for removal as budget and time allows
<b>Remove- Priority</b>	Tree poses an elevated risk and should be removed in an expeditious manner
<b>Risk Assessment- Standard</b>	Level 2 - Standard Risk Assessment is recommended; an assessment without advanced tools or climbers
<b>Risk Assessment- Advanced</b>	Level 3 - Advanced Risk Assessment is recommended; an assessment using advanced tools, techniques and/or climbers
<b>Monitor- Annual</b>	Tree has an structural defect or other significant issue that requires yearly reassessment
<b>Monitor- Long Term</b>	Tree has an indiscernible defect, or shows signs of developing issues or general decline and requires long term monitoring for further change or decline
<b>Grind Stump</b>	Stump is visible and should be removed
<b>Maintenance- Other</b>	Tree requires maintenance not related to pruning or removal. Typically used for situations such as leaning new plants, chemical treatment, mulching, girdling objects, etc

## RECOMMENDATION REASON

Reasons for the arborist recommendations above are listed here. This is a limited list but includes the most common observed issues that justify the condition and arborist recommendation for that tree.

<b>Clearance</b>	Branches are blocking/ touching Building, Sidewalk, Street, or Sign	
<b>Dead</b>	Tree is dead or nearly so	
<b>Deadwood</b>	Large Limb	One or more larger dead limbs requiring removal but not moderate or severe deadwood by percentage
	Moderate	Tree contains 11-30% deadwood, by ocular estimate
	Severe	Tree contains more than 30% deadwood, by ocular estimate
<b>Decay Column</b>	Tree has visible or audible decay in central trunk(s)	
<b>Defect</b>	Other	Tree has other defect not listed, specifics noted in comments field
	Unobservable	Tree has a potential defect that is not observable from the ground
<b>Dieback</b>	Tree crown is dying back	
<b>Girdling Object</b>	A nondescript object is girdling the tree or tree part	
<b>Hanger</b>	Branches are hanging in crown, partially attached or free hanging	
<b>High Location Value</b>	Justification for Risk Assessment; tree is in prominent location and has ecological value	
<b>Included Bark</b>	Tree branches have tight V-shaped union(s) and have developed bark inclusions	
<b>Insects/Disease</b>	Tree has observable signs or symptoms of pests or pathogens	
<b>Lean</b>	Tree is leaning at undesirable angle	
<b>Mechanical Damage</b>	Basal damage caused by landscaping equipment, or other physical damage	
<b>New Planting</b>	Justification for establishment pruning, staking, mulching, etc	
<b>Other</b>	Other notable observance not listed, specifics noted in comments field	
<b>Overgrown</b>	Excessive branch or sucker growth requiring priority pruning	

<b>Poor Form</b>		Tree has poor architecture, often due to limited growospace or improper pruning
<b>Roots</b>	Compacted	Observed or inferred signs of soil compaction
	Girdling	Observed girdling roots or severe trunk flattening
	Heaving	Observed evidence of root or soil heaving
	Multiple Issues	Two or more root issues
	Still BB	Roots confined to ball & burlap due to intact twine and basket, treated burlap, or other observed factor
	Wounded	Root damage from construction, hardscape, mowing equipment, or other factor
<b>Rot</b>	Heartwood	Observable internal decay; decay column, cavity, etc
	Basal	Observable decay at the base of the tree
	Sapwood	Observable vascular tissue decay
	Other	Other signs of decay such as wetwood, root rot, etc
<b>Mushroom/Conk</b>		Visible fungal fruiting bodies
<b>Topped</b>		Tree had its apical meristem or terminal leader removed; typically due to poor pruning practice, utility pruning, or storm damage
<b>Weak Trunk Union</b>		Weak union caused by included bark or poor branching angles that have compromised structural stability
<b>Wounds</b>	Crown	Scaffold or secondary branch wounds affecting tree health and/or stability
	Trunk	Trunk wounds affecting tree health and/or stability
<b>Utility Conflict</b>		Pruning required due to interference with wires, street lamp, traffic light, or other utility
<b>Sign Conflict</b>		Pruning required due to obstruction of signage
<b>Storm Damage</b>		Tree has recent damage due to storm or winds such as torn limbs

#### LAND USE

For the purposes of this inventory options for land use designations include Agricultural, Commercial, Industrial, Institutional, Multifamily, Recreational, Single Family, Transportation, and Other.

#### GROWING SPACE/PARKWAY SIZE

For this park district inventory, most trees were classified as “open” as there is generally adequate soil volume in park district settings. For street tree inventories, this field is used to record the distance from the curb to the sidewalk or such other soil volume conditions or restrictions.

<b>1-3 FEET</b>	Parkway width is 1-3 feet
<b>4-6 FEET</b>	Parkway width is 4-6 feet
<b>7-12 FEET</b>	Parkway width is 7-12 feet
<b>13+ FEET</b>	Parkway width is 13 feet or greater
<b>TREE PIT</b>	Tree is planted in a container or pit
<b>NO SIDEWALK</b>	No sidewalk is present
<b>OPEN</b>	Tree is growing in an open area, used primarily for trees in Park settings
<b>OTHER</b>	Any other category not described above

#### RISK LEVEL

This is the equivalent of a Level 1 Limited Visual Risk Assessment and denotes a condition observed by the Arborist that would appear, in their judgement at the time of the inventory, to pose possible risk to people or property. The specific condition would be reflected in the above Arborist Recommendations and Reasons.

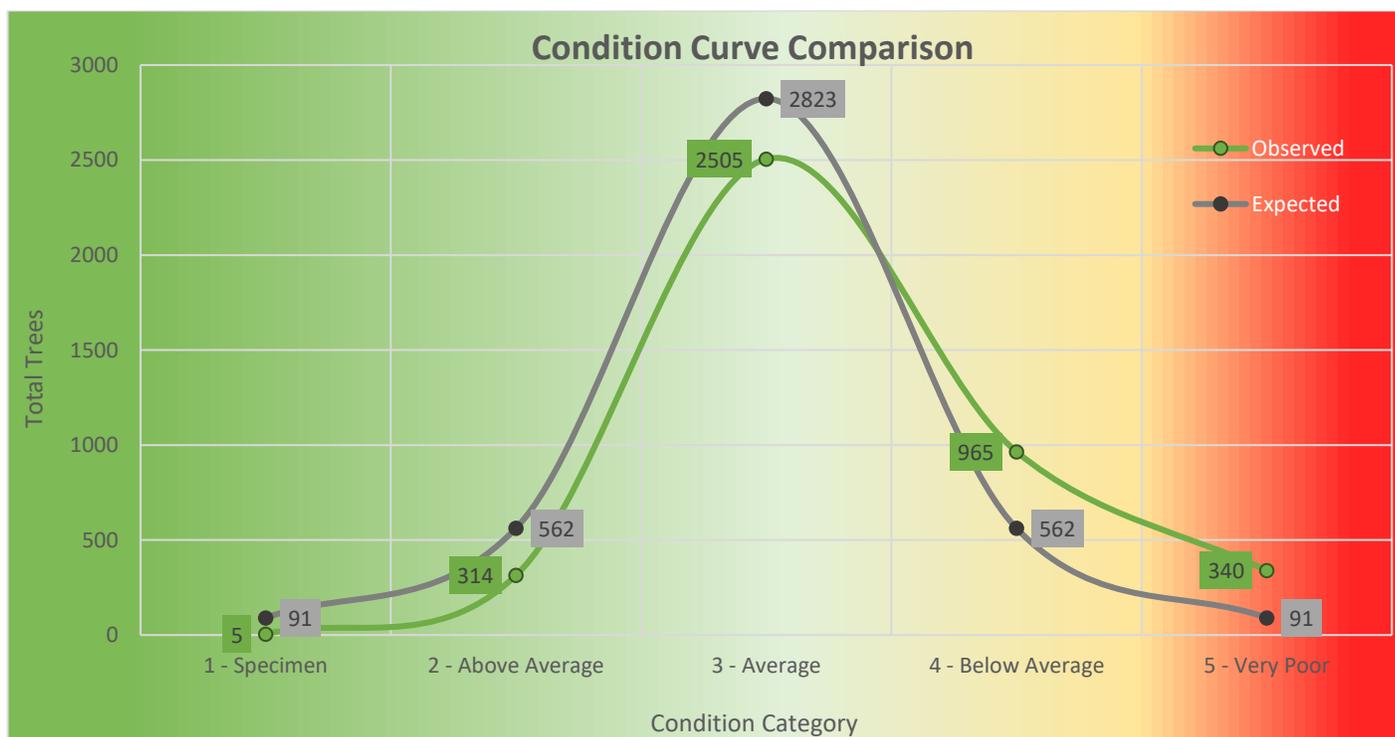
<b>None Observed</b>	No observable risk observed at the time of the inventory
<b>Elevated</b>	Moderate level of risk to people or property that should be investigated by the Owner/ Manager
<b>Substantial</b>	High level of risk to people or property that should be investigated by the Owner/Manager and mitigated as soon as practical
<b>Critical</b>	Extreme level of risk to people or property that should be mitigated by the Owner/ Manager as soon as possible

## COMMENTS

Comments have been included as a courtesy to denote any conditions worthy of note. These comments will be standardized as much as possible, though certain situations certainly exist where nonstandard comments were utilized.

## Statistical Overview

<b>Number of Trees Inventoried</b>	<b>4,129</b>
Number of Stumps Inventoried	127
Total Number of Species	77
Total Diameter Inches	67,692"
Average Tree Diameter	16.39"
Average Tree Condition	3.32 (Well Below Average)
Average Mature (8" and up) Tree Condition	3.30 (Well Below Average)



This curve represents the distribution of trees in each of the categories enumerated above. As stated in the collection parameters section, deviations from the expected normal standard distribution can serve as a useful tool in analyzing the overall health of a tree population, and for this reason, we have included a theoretical curve representing a normal distribution so that comparisons can readily be made. The green line with green labels represents what we observed in the field, and the grey line with grey labels is the predicted normal distribution. The condition curve for the BPD inventory indicates a tree population that is in overall well below average condition.

The Condition 1, or specimen trees, were much lower than would be predicted by the standard distribution. In general, we always expect that the specimen trees will come in lower than their statistical norm because of their rarity. A Condition 1 tree, by definition, must be at least 16" DBH (and generally much larger), have textbook perfect

architecture for the species, and have no observable defects. More than half of BPD trees have a DBH less than 16” and are not eligible for the Condition 1 category. Also, because much of the population is recommended for some kind of mitigation, those trees also do not qualify for such status. Many of the trees in the Condition 3 category can move into the Condition 2 category as these mitigations are performed. As younger trees are planted in sites with adequate growing space, and if they are properly pruned and maintained, they should develop with good structure and may mature to become Condition 2 and eventually Condition 1 trees.

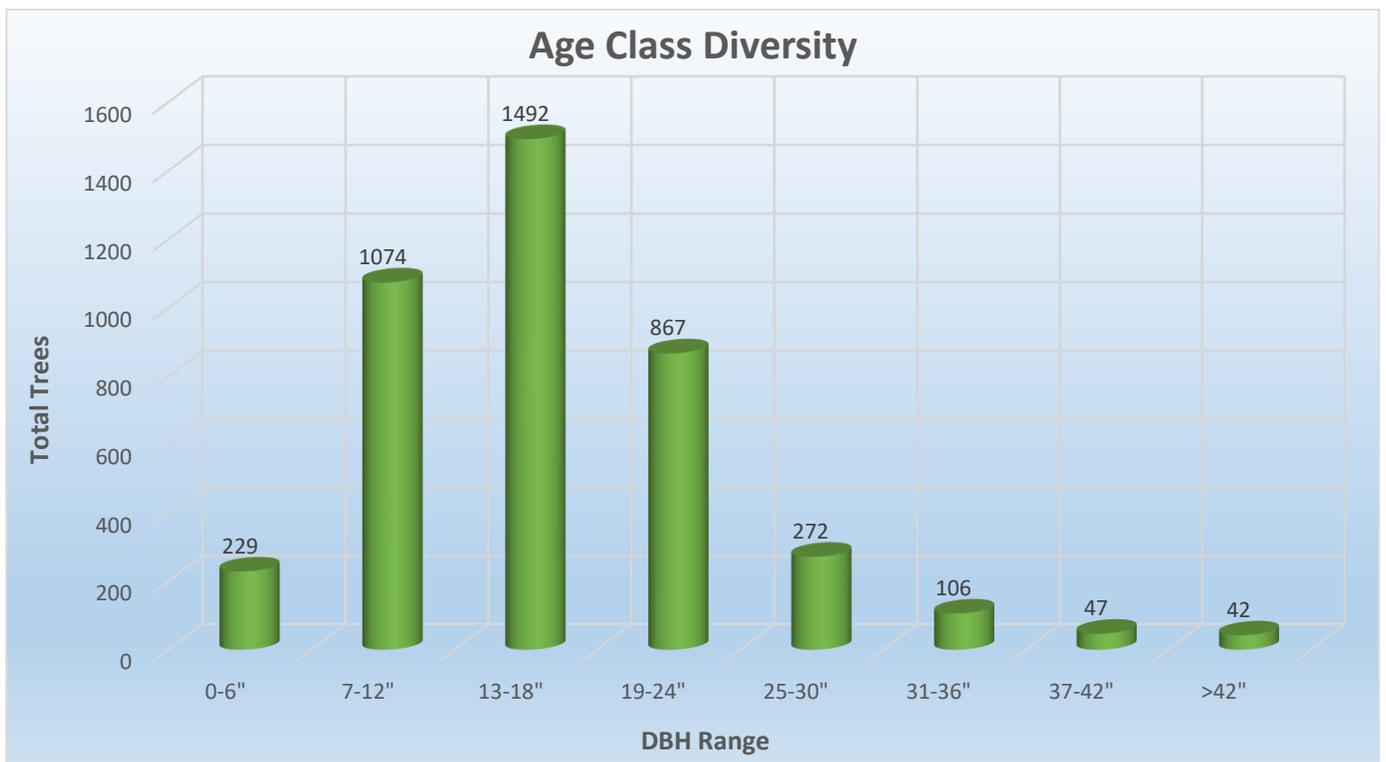
The Condition 5, or very poor trees, are well above the expected norm. Of the 340 trees in this category, 337 reside at White Pines Golf Course. It is recommended that Condition 5 trees be prioritized and removed in a timely manner.

The Condition 2, or above average trees, are lower than what statistical analysis would predict. Similar to the Condition 1 category, Condition 2 trees need to have good structure that is consistent with the species in question and also be over 8” DBH. Looking toward the future, BPD has an opportunity to increase the number of trees in the Condition 2 category. In general, if trees are properly mulched and maintained, newly installed trees are done so correctly and cared for well, and site selection for the trees is well matched to the species, trees will often mature with good form and without significant defects. These trees can eventually become Condition 2 trees.

The Condition 4, or below average trees, were quite a bit higher than what would be statistically expected. This data represents the significant number of over-grown trees that have developed structural defects, decay, and deadwood. BPD can use the data from this inventory to locate Condition 4 trees and prioritize them for maintenance or removal.

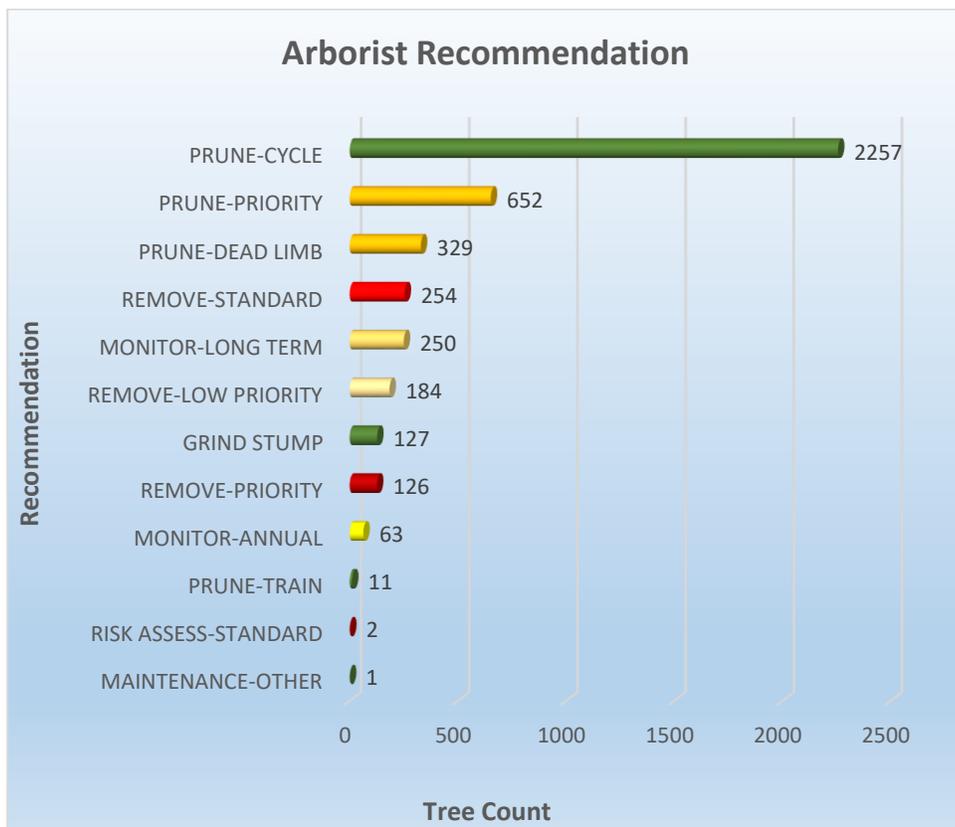
The trees in the Condition 3, or average, category are lower than the predicted norm. It should be mentioned that all trees less than 8” DBH are always assigned this category unless they happen to be in worse condition. This number is low because trees that would normally be in this category are in the Condition 4 or 5 categories instead. As the Condition 4 and 5 trees are removed and replaced, and Condition 3 trees nearing the Condition 2 DBH threshold may move into the higher category, this Condition curve will continue to shift toward average.

Ideally, tree populations should have an average tree condition somewhere in the 2.5 range, with a sizable population of specimen trees, and a steep drop off in trees after Condition 3. With some younger trees which are about to enter a phase where they may become Condition 2 trees as opposed to a Condition 3, and some actions to lower the number of trees in the Condition 4 and 5 categories, we anticipate that BPD can be poised to make some positive changes over the next several years that will result in a more diverse and resilient tree population than they have currently.



In terms of the ages of trees in Bensenville Park District, the tree population was split into 8 classes of 6” diameter each. This shows how many trees are in each “age class.” This age class analysis chart illustrates a somewhat atypical trend in the overall age spread of a tree population seen in a park district setting. Often, we see many trees being younger to middle aged and a relatively lower number of trees in the older age categories. Bensenville’s population is largely represented by the middle-aged to mature trees approximately 15-35 years old. As shown above, trees less than 15 years old (0-6” DBH) represent just 6% of the overall population (229 trees of 4,129). It is assumed that most trees grow on average approximately ½” per year, although that figure varies significantly depending on the species in question. Over 25% (1,074 of 4,129) of BPD’s trees have a DBH of 7-12” which are generally considered to be about 15-25 years old. The 13-18” DBH category makes up 36% (1,492 of 4,129) of the population and is considered to be approximately 25-35 years old. The 867 trees (21%) in the 19-24” DBH category are generally mature trees over 35-45 years old.

The 467 trees in the 25”+ DBH categories are considered to be about 45-50+ years old and make up 11% of the population. Many of these may be nearing the end of their natural life as 179 of these trees are in Below Average or worse condition. It should be mentioned that the number of trees in the 30”+ categories are often lower due to the natural senescence and ensuing decline of trees in urban settings, though park district trees are frequently longer lived due to the fact they often have unrestricted growing space, both above and below ground. A fairly equal number of trees in each age classification is, within reason, desirable and indicative of a consistent focus on tree planting and tree maintenance in BPD over the years and shows that the right trees are being planted in the correct locations. As BPD increases new plantings and these trees mature and move to the next age classes, BPD continues to have an opportunity, over time, to bring the tree age classes to a more balanced level.



In terms of Arborist Recommendations of maintenance needs in the BPD tree population, the statistics displayed above show that approaching half of the population (45%) is recommended for a mitigation other than cycle prune. Significantly, over 13% of the population was recommended for removal. The 564 trees in the “Remove” sets include a variety of tree species which have declined or developed structural defects and are beyond the point of salvaging. All but 4 of the 126 Priority Removals reside at White Pines Golf Course and these 126 should be prioritized before other removals. The 254 trees designated as standard removals should be prioritized and removed in a timely manner. The 184 trees in the low priority category should be removed as time and budget allow. The remaining categories, other than removals discussed above, were used to indicate trees in need of maintenance which should be prioritized over those in the Cyclical Prune category and will be discussed briefly below.

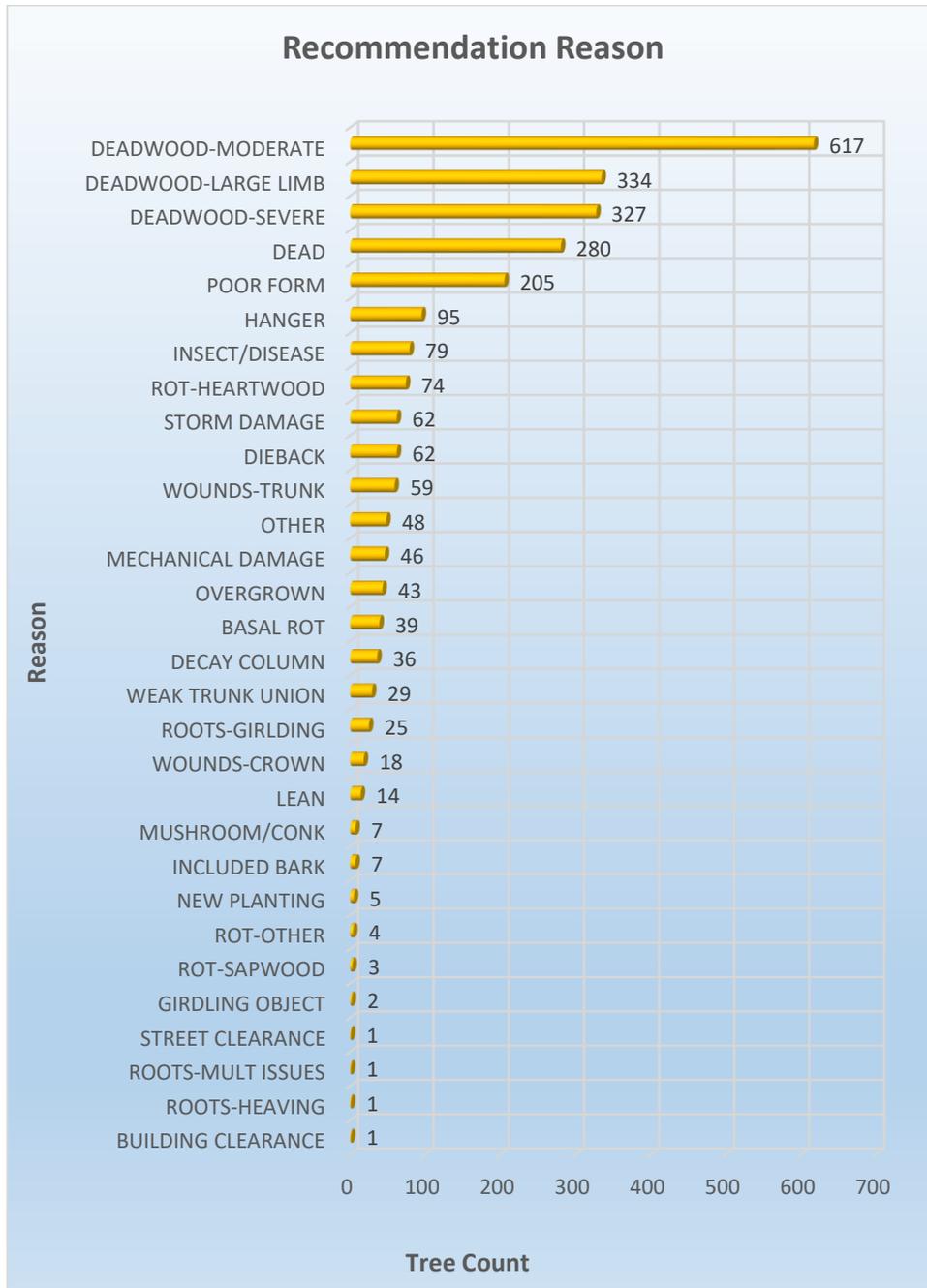
The 2 trees which received a “Risk Assessment” status were in a location where they could pose an elevated risk to BPD patrons. These are trees which have developed defects and require a more in-depth inspection and analysis to determine BPD’s risk tolerance threshold and the need for mitigation efforts. It is recommended that a Level 2 Basic Risk Assessment be performed on these trees (per TRAQ or ANSI A300 Pt 9 Standards), or equivalent (ISA Tree Risk BMP methodology, Matheny and Clark, etc).

The 652 trees in the “Prune-Priority” group and 329 trees in the “Prune-Dead Limb” group are trees which have significant deadwood, are over-grown, or have parts which need to be removed promptly, and should have pruning prioritized over the trees in the cyclical prune set. Generally, we consider this to be a “within 1-3 years” level of pruning.

The 313 total trees in the two “Monitor” categories can be viewed as being in a transitional phase. For the most part, the tree has an indiscernible defect, or shows signs of developing issues or general decline which must be observed. These trees should be reassessed periodically, and their maintenance status updated as necessary.

Trees categorized as “Prune-Train” are typically trees smaller than 8” DBH and have structural issues or are overgrown and require selective pruning to establish better architecture in the future. Establishment pruning, or the pruning of young trees to establish proper branching habit and structure, is one of the least expensive yet most effective maintenance items that can be performed on a young tree.

Trees in the “Maintenance-Other” category typically need some other form of maintenance not covered in the rest of the categories. A description of the maintenance needed should be found in the comments field.



The arborist recommendation reasons summarize the field observations into the main factors that justify the Arborist Recommendation and the condition rating of each tree. BPD can use this inventory data to query specific defects and prioritize mitigation actions. Some trees may have more than two factors, but the two most prominent issues that directly pertained to the maintenance recommendation or condition were noted. As shown above, we can see that various “Deadwood” descriptions accounts for the first three recommended reasons for mitigation. This is a strong indication that BPD’s population is largely overdue for cyclic pruning. A significant number of trees were also noted to have trunk wounding from mechanical damage. Repetitive damage to the vascular system from mowers and weed whips can have adverse effects on tree health.

## Risk Level Summary

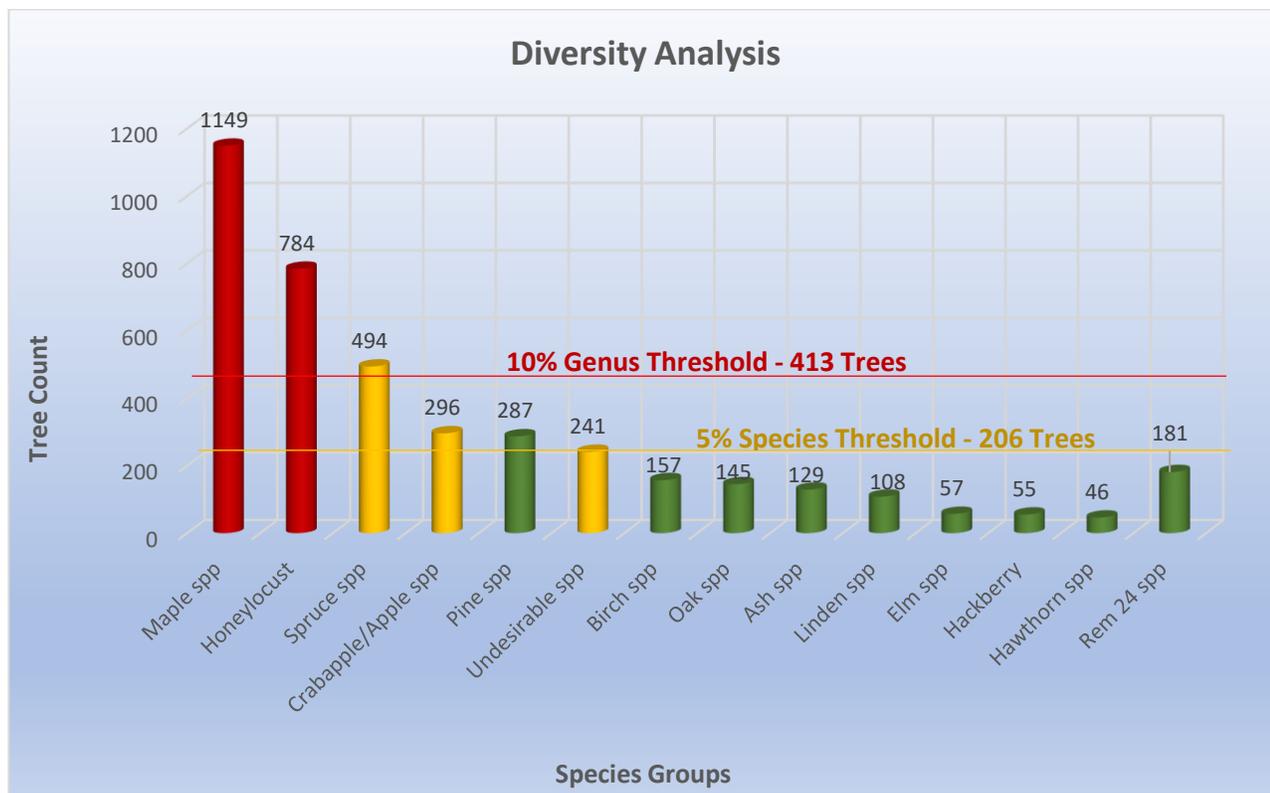
We cannot stress enough that these were Rapid Assessments, and not full risk Assessments, and as such, are meant to indicate a need for further study, and do not represent a legal description of these trees risk levels. These assessments are not legally binding and are not intended to be utilized as evidence in a court of law. They serve primarily for internal record keeping, and a means of locating trees which require more detailed study before making a final decision as to management strategy. Since the risk level field is part of the data collection parameters for the Bensenville Park District inventory, it is recommended that BPD develop and implement a Tree Risk Assessment Policy so that consistency and accountability is successfully achieved.



The vast majority of trees (3,239) showed no observable signs of risk, which is a positive aspect of the population. However, as illustrated in the chart above, 890 trees were found to have some degree of risk. The categories of risk most concerning are the Substantial and Critical risk levels. The 35 trees in the critical risk category all reside in White Pines Golf Course and mostly consist of large dead trees near higher traffic areas and should be promptly removed (see photos below). Going forward, any tree that falls into the critical risk level category should receive immediate mitigating actions. Some of the 356 trees in the substantial category could have the risk mitigated through pruning, however others require removal as well. Any tree found to pose an elevated risk level should be monitored and/or inspected by BPD and a threshold of risk tolerance should be established. Some of elevated or substantial risk level trees may also be considered for a Level 2 Risk Assessment and/or mitigating action.



## Diversity Statistics



The “20-10-5” rule has been adopted as a Best Management Practice in Urban Forestry. This rule simply states that a tree population should ideally have no more than 20% of any single Family, no more than 10% of any single Genus, and no more than 5% of any single species. As we have learned from the EAB infestation and Dutch Elm Disease, when a pest or pathogen that attacks specific tree genera is introduced into a region where those specific genera are overrepresented, tree populations can take a devastating hit. That being said, we have included 10% Genus threshold and 5% species threshold lines on the diversity analysis graph above.

Maple species account for over a quarter of BPD’s overall population and Honeylocusts make up nearly 19%. It is quite common for species of Maple and Honeylocust trees to be the highest represented species in parks and in other urban settings because they are adaptable and hardy shade tree and stock is generally readily available. Also notable is the significant amount of Spruce trees in the BPD’s current tree population. Some species of Spruce (and Pine as well) are particularly susceptible to a number of pathogenic problems in our region and should be monitored for the presence or progression of these conditions. Although Honeylocust and Silver Maple together make up over 35% of the overall population, there are just 3 other species that account for more than 5% of the total population and include: Crabapple, Norway Spruce, and Norway Maple (see Appendix A).

The 241 trees which were classified in the “Undesirable” tree category consist of species that are invasive and/or have fast-growing or weak-wooded characteristics that make them unwanted in the urban landscape. A significant number of these trees are large overgrown Siberian Elm trees that are known to develop deadwood quickly. Also, 30 of these trees were Buckthorn clumps maintained as small trees or shrubs at White Pines Golf Course. These are recommended for removal due to their invasive qualities.

Although an in-depth diversity analysis is beyond the scope of this inventory executive summary, BPD can use the tables and graphs that have been provided as a reference when choosing species to plant in the future. An Urban Forestry Management Plan will provide a comprehensive analysis of the current population. Proper planning will help BPD protect the investment in each new tree and to create a future tree population that is more resilient and diverse than the current one. The table below, which lists species that each account for less than 1% of the total tree

population, can be used as a guide when choosing future species to plant. This list is limited and does not represent the other options available for planting in this region that are not currently present in the population. Going forward, BPD should take a more targeted approach when it comes to choosing new species to plant in its parks and focus on planting a wider variety of tree species and genera.

EASTERN REDCEDAR	37	IRONWOOD	7	BALDCYPRESS	2
PEAR-CALLERY	29	SYCAMORE	7	HICKORY-SHAGBARK	2
WALNUT-BLACK	18	HEMLOCK-EASTERN	6	ALDER-SPP	1
DOUGLAS FIR	11	DOGWOOD-SPP	5	LILAC-TREE	1
CATALPA	10	MAGNOLIA-SPP	5	LONDON PLANETREE	1
ARBOR VITAE	9	UNKNOWN	5	PLUM-SPP	1
BUCKEYE-OHIO	9	AMUR CORKTREE	3	VIBURNUM	1
AMERICAN REDBUD	7	GINKGO	3	YELLOWWOOD	1

## Conclusion

It has been a pleasure for Great Lakes Urban Forestry Management to provide this tree inventory, data analysis, and executive summary to the Bensenville Park District. BPD along with Great Lakes Urban Forestry will use the tree data to develop an Urban Forestry Management Plan, which will create long-term strategies and budgets for tree planting and management in BPD. We look forward to the opportunity to partner with BPD to assist in Urban Forestry Management Planning, performing Tree Risk Assessments, or assisting in any other tree or natural resource related initiatives. Thank you for the opportunity to partner with you, and we look forward to continuing to serve as your Tree, Natural Resource, and Geospatial Data experts.



## Appendix A: All Trees

The table below is an itemized list of all tree species present in the Bensenville Park District tree population, along with average DBH (in inches) and average condition rating for each species. The average condition ratings combined with higher average DBHs can be used as a guide as to what species are growing well in BPD parks.

SPECIES	COUNT	% OF TOTAL	AVG DBH	AVG COND
HONEYLOCUST	784	18.99%	17.90	3.24
MAPLE-SILVER	725	17.56%	19.08	2.98
APPLE-CRAB SPP	292	7.07%	9.41	3.63
SPRUCE-NORWAY	280	6.78%	13.47	3.07
MAPLE-NORWAY	255	6.18%	16.33	3.34
SPRUCE-BLUE	184	4.46%	12.59	3.47
BIRCH-RIVER	157	3.80%	16.62	3.12
PINE-AUSTRIAN	121	2.93%	13.75	3.62
MAPLE-RED	102	2.47%	10.58	3.17
ASH-WHITE	94	2.28%	18.71	4.87
PINE-SCOTCH	90	2.18%	13.47	3.60
LINDEN-LITTLELEAF	85	2.06%	16.65	3.15
ELM-SIBERIAN	83	2.01%	29.46	3.66
PINE-WHITE	68	1.65%	11.81	3.22
HACKBERRY	55	1.33%	18.98	2.84
OAK-RED	55	1.33%	11.07	3.36
ELM-AMERICAN	45	1.09%	24.69	3.64
WILLOW-WEeping	40	0.97%	36.15	3.95
HAWTHORN-SPP	38	0.92%	12.58	3.47
EASTERN REDCEDAR	37	0.90%	15.22	2.84
ASH-GREEN	35	0.85%	17.51	4.80
MAPLE-SUGAR	35	0.85%	14.26	3.23
BUCKTHORN	30	0.73%	12.90	3.97
PEAR-CALLERY	29	0.70%	12.90	3.24
MULBERRY-SPP	28	0.68%	21.43	3.71
OAK-BURR	23	0.56%	8.70	2.91
LINDEN-AMERICAN	21	0.51%	23.29	3.14
OAK-ENGLISH	21	0.51%	20.43	3.38
COTTONWOOD	20	0.48%	44.15	3.05
WALNUT-BLACK	18	0.44%	11.00	3.61
CHERRY-BLACK	17	0.41%	18.65	4.24
OAK-WHITE	17	0.41%	14.53	2.82
SPRUCE-WHITE	17	0.41%	8.00	3.29
OAK-PIN	16	0.39%	25.81	2.75
MAPLE-AMUR	15	0.36%	14.20	3.33
SPRUCE-SPP	13	0.31%	11.77	4.46
DOUGLAS FIR	11	0.27%	10.18	3.45
MAPLE-AUTUMN BLAZE	11	0.27%	9.55	3.09
WILLOW-SPP	11	0.27%	28.82	3.91
CATALPA	10	0.24%	20.20	3.40

ELM-SPP	10	0.24%	5.90	3.40
ARBOR VITAE	9	0.22%	13.22	3.11
BUCKEYE-OHIO	9	0.22%	9.33	2.89
OAK-SPP	9	0.22%	14.56	5.00
HAWTHORN-COCKSPUR	8	0.19%	14.63	3.00
AMERICAN REDBUD	7	0.17%	8.86	3.14
IRONWOOD	7	0.17%	9.14	3.14
PINE-SPP	7	0.17%	8.29	4.14
SYCAMORE	7	0.17%	24.14	2.71
BLACK LOCUST	6	0.15%	21.83	3.33
HEMLOCK-EASTERN	6	0.15%	5.17	3.33
DOGWOOD-SPP	5	0.12%	9.60	3.00
MAGNOLIA-SPP	5	0.12%	6.00	3.00
UNKNOWN	5	0.12%	14.00	5.00
APPLE-EDIBLE	4	0.10%	11.50	3.75
BOXELDER	4	0.10%	31.25	4.25
OAK-SWAMP WHITE	4	0.10%	9.50	2.25
AMUR CORKTREE	3	0.07%	14.33	3.33
GINKGO	3	0.07%	16.00	2.00
MAPLE-JAPANESE	3	0.07%	9.33	3.00
BALDCYPRESS	2	0.05%	2.50	3.00
HICKORY-SHAGBARK	2	0.05%	13.00	2.00
MAPLE-SPP	2	0.05%	6.00	5.00
AILANTHUS	1	0.02%	16.00	3.00
ALDER-SPP	1	0.02%	8.00	3.00
ELM-HYBRID	1	0.02%	9.00	3.00
ELM-RED	1	0.02%	31.00	3.00
LILAC-TREE	1	0.02%	3.00	4.00
LINDEN-SILVER	1	0.02%	4.00	3.00
LINDEN-SPP	1	0.02%	2.00	3.00
LONDON PLANETREE	1	0.02%	19.00	3.00
MAPLE-MIYABEI	1	0.02%	8.00	3.00
PINE-MUGO	1	0.02%	13.00	3.00
PLUM-SPP	1	0.02%	10.00	4.00
POPLAR-WHITE	1	0.02%	24.00	4.00
VIBURNUM	1	0.02%	6.00	3.00
YELLOWWOOD	1	0.02%	2.00	4.00