Glenview Park District

2023 Tree Inventory Update

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Introduction

In Spring/Summer of 2023, Certified Arborists from Great Lakes Urban Forestry Management conducted data collection for an update to Glenview Park District's (GPD) comprehensive tree inventory which was originally collected in 2011. This year's update is the 9th year of inventory updates since the original data collection and included the reinventory of the District's smaller western park properties where all trees in these parks were remeasured and reassessed. In addition to these updates, all American Elm and Ash trees within the GPD system were updated and reassessed and all newly planted trees were added to the inventory data. This inventory resulted in a total count of 10,106 active inventoried trees. The results and analysis of this latest 2023 inventory update follow in this report. Great Lakes Urban Forestry Management (GLUFM) has been pleased to partner with GPD and provide its tree inventory and GIS services to GPD over the past 10+ years. We look forward to continuing to assist with future inventory updates, as well as any other GIS project or forestry management tasks that you may conduct in the future.

Collection Parameters

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

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

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.

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 (1-5) 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)

Condition 1	**Specimen** – 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 a minimum of 16" DBH. These are legacy trees, and as such are rare.
Condition 2	**Above Average** – 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 a minimum of 8" DBH for the reason listed above. Often the difference between condition 2 and 3 is form or growth habit.
Condition 3	**Average** – 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.
Condition 4	**Below Average/ Poor** – 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.
Condition 5	**Very Poor/ Dead** – 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.

CROWN HEIGHT/ CROWN SPREAD/CANOPY VOLUME

Crown Height and Crown Spread are broadly estimated to approximately the nearest 10 foot interval by a combination of pacing from the drip line to the trunk, and utilizing a combination of clinometers, laser rangefinders, landmarks, and professional judgment. This data can be utilized for 3-Dimensional Mapping, as well as for better calculating rainfall interception rates, carbon sequestration, canopy volume, and other such factors.

ROOTS

Roots are evaluated as part of the Standard Defects Package "at a glance"

Normal	Roots appear normal
Exposed	Roots are exposed and can be damaged by mowers, etc.
Girdling	Observed girdling roots or severe trunk flattening
Compacted	Roots showing observable signs of underground root compaction
Wounded	Roots showing wounds
Multiple Issues	Roots showing a combination of above issues

WOUNDS

Wounds are part of our standard defects package, and include, but certainly aren't limited to: Splits, cavities, callus tissue, holes, or any other mechanical damage. Categorically, "None" was still used if the damage was minor enough that it would not affect the tree.

None	Tree has no wounds
Moderate	Tree has moderately bad wounds
Severe	Tree has severe wounds

ROT

Rot was evaluated as part of the Standard Defects Package, and includes, but certainly isn't limited to: mushrooms, dry rot, brown rot, bleeding, basal rot, cankers, or generally anything that appears to have been caused by an organism, and not mechanical damage. In this case, even small amounts of rot were noted as being "moderate", due to the strong possibility that there is much more damage that cannot be seen with the naked eye.

None	No rot visible whatsoever
Moderate	Modest amounts of observable damage was present
Severe	Severe rot was observed

DEADWOOD

Deadwood was evaluated as part of the Standard Defects Package. Generally, trees with a small amount of deadwood fell into the "None" category. This is a scalable evaluation. In other words, 6 dead branches would be "Severe" on a 4" DBH tree, "Moderate" on a 10" DBH tree, and "None" on a 25" DBH tree.

None	Tree contained 0-10% deadwood, by ocular estimate
Moderate	Tree contained 11-30% deadwood, by ocular estimate
Severe	Tree contained more than 31% deadwood by ocular estimate

MAINTENANCE RECOMMENDATIONS

Maintenance recommendations are provided to assist in managing the tree population. They are very general guidelines for pruning and care. See the table below.

Cyclical Prune	Tree is in fair to good health and will require standard pruning or maintenance on a 3-5 year cycle.
Monitor	Tree has an indiscernible defect or shows signs of developing issues or general decline which must be observed. Also for healthy Ash trees in EAB infested areas and Ashes currently being treated.
Priority Prune	Tree has not been properly pruned during its developmental years, or suffered damage. Typically overgrown, and in need of pruning sooner than a 3-5 year standard cycle.
Hazard Assessment	Tree has deadwood or other defects which are at risk of threatening property, utilities, or human life. These trees need a more thorough inspection to determine if they require removal or other remedial action.
Remove	Tree must be removed. This is only utilized if removal is truly the only reasonable option. For trees that are on the borderline, or may require a Hazard Assessment, the phrase "consider removal" will appear in the comments field.

EAB DAMAGE

This was an ocular estimate of the level of Emerald Ash Borer (EAB) damage visible on each Ash tree.

None	No EAB damage at all was VISIBLE at the time of inspection
Moderate	Tree either exhibited direct evidence of EAB infestation OR defects that could possibly be consistent with EAB at the time of inspection, even if there was a probability that the defects were not EAB-related
Severe	Tree exhibited severe EAB symptoms at the time of inspection

COMMENTS

Comments were included as a courtesy to denote any conditions worthy of note, such as weak trunk unions, interference with utilities or streetlamps, limited growing space, poor form, or any other information GLUFM felt was valuable. These comments are standardized as much as possible, though certain situations certainly exist where nonstandard comments were utilized.

MEMORIAL

Any updates to memorial features that were observed during this update were noted in the inventory data.

MEMORIAL NAME

Trees with memorial plaques or placards were recorded with the dedicated name on the plaque and a photo of the placard was attached to the point.

TRAQ FIELDS

For the parks which received a complete update, data for the following 3 fields were collected for trees we identified as posing a Moderate risk in order to get a basic risk rating based on the TRAQ (Tree Risk Assessment Qualification) system. This data is provided in order to determine which trees GPD will need to inspect more closely, and perhaps perform a more detailed assessment. These fields can also be used for Glenview Park District to track its internal risk assessments.

We cannot stress enough that these were Rapid Assessments, and not full TRAQ Assessments, and as such, are meant to indicate a need for further study, and do not represent a legal description of Risk. 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. These assessments can be considered approximately a Level 1, or Limited Visual Assessment. Further discussion of the TRAQ data collected in GPD will be found later in this report.

FAILURE LIKELIHOOD

This is the likelihood that the tree or tree part will fail within a period of 1 year from the date of survey.

Improbable	Failure of tree/tree part is highly unlikely within a 1 year time frame
Possible	Failure of tree/tree part is possible, but not probable within a 1 year time frame
Probable	Failure of tree/tree part is likely within a 1 year time frame
Imminent	Tree/Tree Part has already begun to fail and failure is imminent

IMPACT LIKELIHOOD

This is the likelihood that the tree or tree part will impact a target when it fails.

Very Low	Failure of tree/tree part is highly unlikely to impact a target
Low	Failure of tree/tree part is unlikely to impact a target
Medium	Failure of tree/tree part may impact a target, but is not expected to do so
High	Failure of tree/tree part will almost certainly impact a target

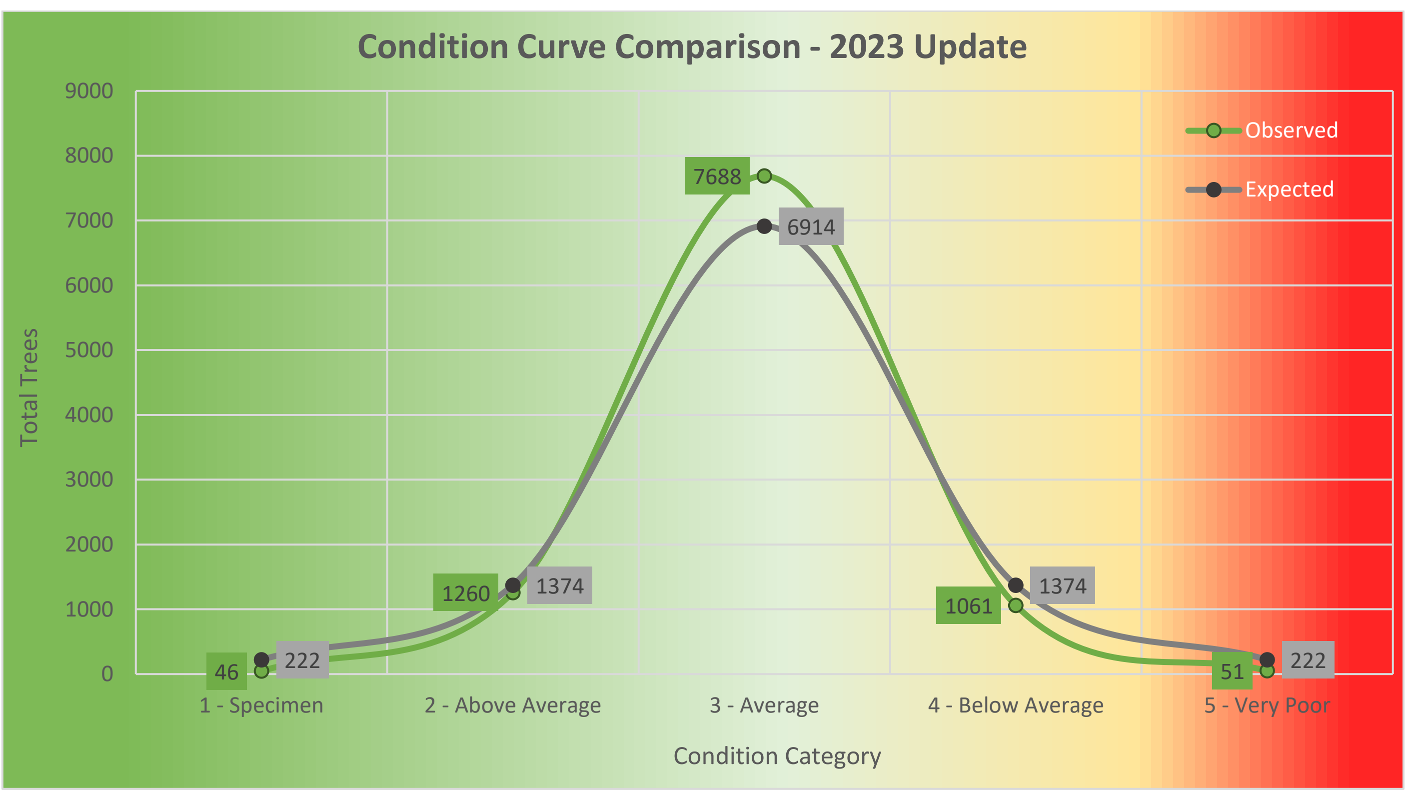
IMPACT CONSEQUENCE

This is the consequence that will be suffered if the tree fails and impacts a target

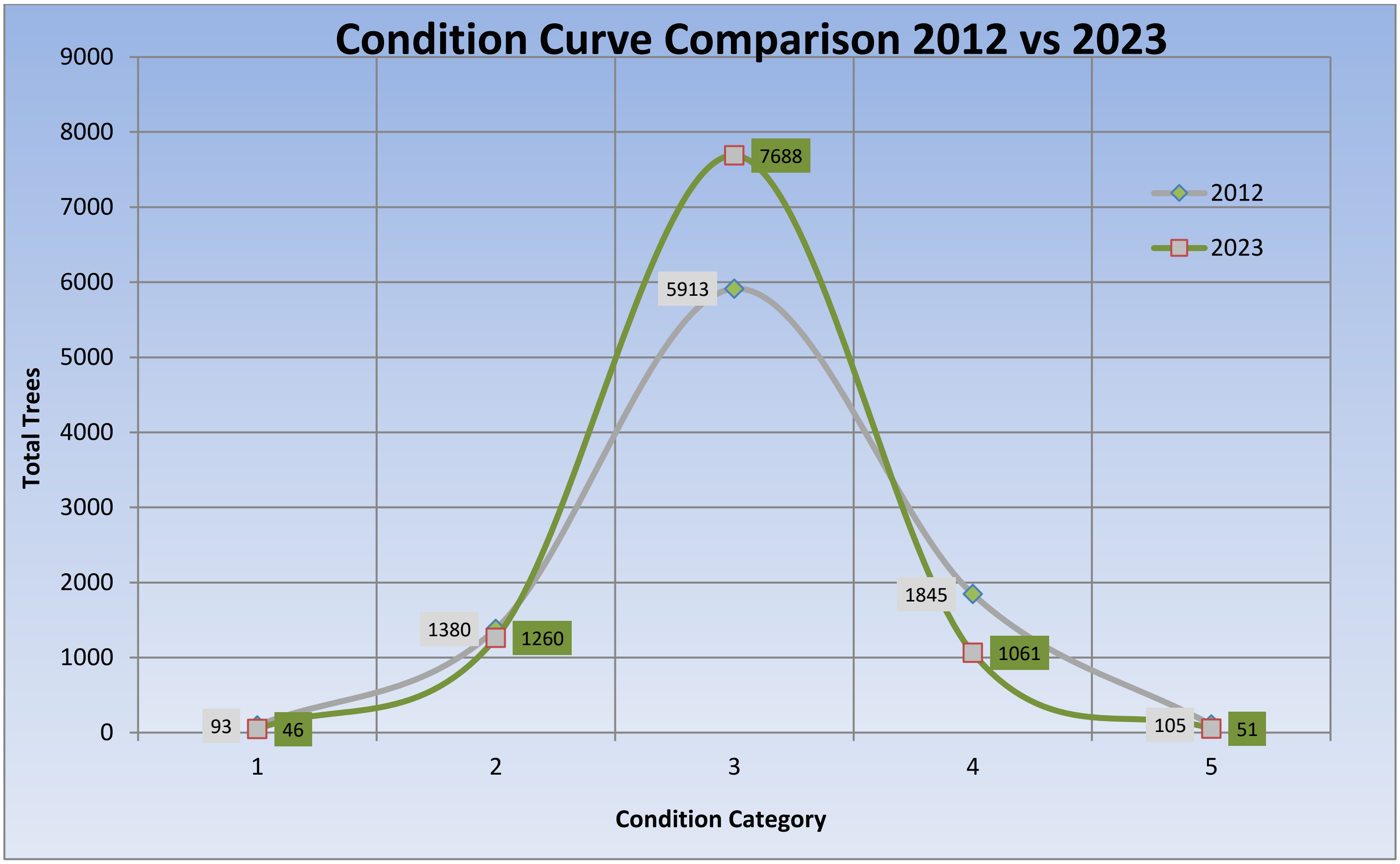
Negligible	Failure of tree/tree part will have no significant consequence
Minor	Failure of tree/tree part will cause minor damage to property
Significant	Failure of tree/tree part will cause significant damage to property or minor injury to life
Severe	Failure of tree/tree part will cause severe damage to property or life

Statistical Overview

	2020	2022	2023
Total Number of Trees	9,611	10,021	10,106
Total Number of Species	136	140	142
Total Number of Stumps	103	121	104
Total Diameter Inches	93,407"	98,343"	99,129"
Average Tree Diameter	9.72"	9.81"	9.81"
Average Condition (unweighted, all trees)	2.99 (Average)	2.98 (Slightly Above Average)	2.98 (Slightly Above Average)
Average Condition (weighted, 8" DBH or over)	2.88 (Above Average)	2.88 (Above Average)	2.89 (Above Average)
Total Trees Removed - Includes GPGC (2023)	468	186	260
Total Trees Added to Inventory	391	524	345
Total Ash/Elm Trees Updated	194	192	182
Average Tree Height - Excludes Praire Club (ft)	23.84	23.12	23.95
Average Canopy Spread - Excludes Prairie Club (ft)	14.77	14.32	15.11
Average Crowding - Excludes Prairie Club (Height to Spread Ratio)	1.61	1.61	1.59
Total Canopy Volume - Excludes Prairie Club (2023)	42,234,622 cu ft	41,834,831 cu ft	54,513,331 cu ft
Average Canopy Volume - Excludes Prairie Club (2023)	5,043 cu ft	4.762 cu ft	5,394 cu ft



The above 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 GPD inventory indicates a tree population that is in slightly above average condition. In comparison to the original condition curve from the 2011/2012 data collection, the graph below illustrates the continued, slow but steady, shift of the overall GPD population to the left, or above average, side of the curve, shown in the graphic below.



For the current and updated data, the Condition 1, or specimen trees, were lower than would be predicted by the standard distribution alone, but we often expect that the specimen trees (and Condition 5 trees as well) 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. About 80% of GPD trees have a DBH less than 16” and are not eligible for the Condition 1 category. 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.

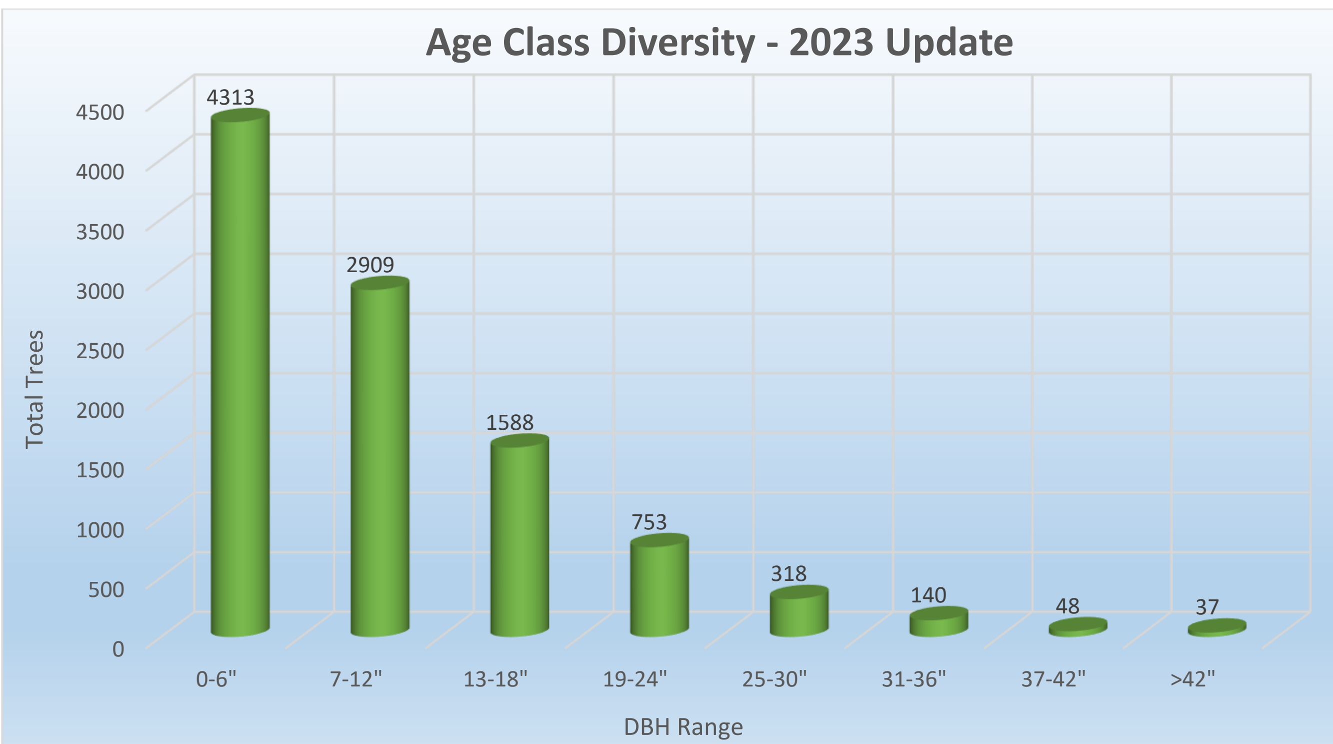
The Condition 5, or very poor trees, came in well below the expected norm, which can be expected in park district settings since poor condition trees are often removed long before they move into this category. It is important to note that this number has significantly reduced each update. It is recommended that any Condition 5 trees be prioritized and removed in a timely manner.

The Condition 2, or above average trees, are quite close to what statistical analysis would predict which is a positive trait for the tree population, indicating that gradual shift to left side of the curve. 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 at least 8” DBH. Looking toward the future, GPD has an opportunity to further 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, came in significantly lower than what would be statistically expected, which is again a positive trait. Many of these are poor condition or over-mature trees that have developed structural defects, decay, and deadwood. GPD can use the data from this inventory to locate Condition 4 trees and prioritize them for maintenance or removal.

Condition 4 trees have decreased every year since the original inventory which is primarily due to GPD's continued focus on removing poor condition and under-performing trees. Honeylocusts and Crabapples continue to represent the two highest species of Category 4 & 5 trees, however there have been a number of Crabapple removals completed since the last update and this number is declining. Undesirable species, such as Boxelder, Cottonwood, and Siberian Elm also continue to make up a significant number of trees in the Condition 4 category as well. Going forward, GPD should continue to focus its attention on these other poor condition and undesirable tree species. As time and budget allow, GPD should use the updated inventory and this report to prioritize the removal of certain Condition 4 trees, particularly those that are beyond the point of salvaging, so that a new group of diverse trees may be planted to replace them. Also, a goal should be set to continue to remove poorer condition undesirable species, for safety, aesthetic, and ecological reasons, as well as to create opportunities for new higher quality tree planting.

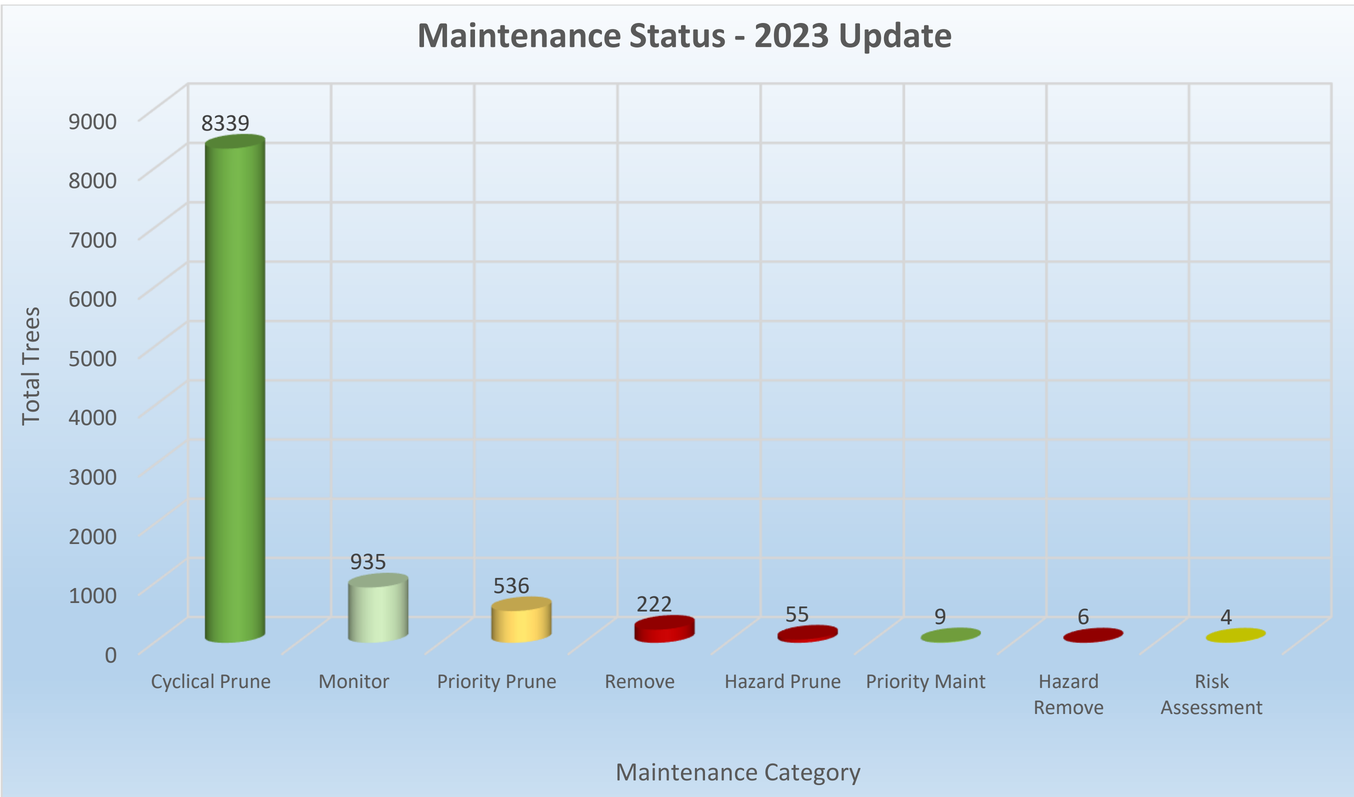
The number of trees in the Condition 3, or average, category is higher than the expected norm. This is simply because this is the average category and generally has the most trees in it and also because some trees that were previously in the Condition 4 category have moved to Condition 3 due to the success of treatments and/or proper pruning. Also, all trees less than 8" DBH are always assigned this category, unless they happen to be in worse condition.



This chart, as in years past, continues to illustrate a typical trend in the overall age spread of a tree population seen in a park district setting, with many trees being younger and a relatively low number of trees in the older age categories. As shown above, 4,313 of GPD's total 10,106 trees (43%) have a DBH of 6" or less which we generally consider to be less than about 15 years old. 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 71% of GPD's trees have a DBH

12” or less. The 7-18” DBH categories make up about 45% (4,497 of 10,106) of the population and are considered to be about 15-30 years old. The 753 trees in the 19-24” DBH category are generally mature trees over 30-45 years old.

Trees measuring over 24” DBH make up just over 5% of the total tree population. The 543 trees in the 25”+ DBH categories are considered to be about 45-50+ years old. 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 GPD over the years and shows that the right trees are being planted in the correct locations. As the younger GPD continues to have an opportunity, over time, to bring the tree age classes to a more balanced level.



In terms of Maintenance Recommendations for the whole population, the statistics displayed above continue to show an overall positive trend. As can be seen from the chart above, the “Cyclical Prune” category is by far the largest and has grown since the last data analysis. The “Monitor” category has been considerably reduced since the last update. There are currently 6 trees in the “Hazard Remove” category which should be promptly prioritized for removal and the 222 trees designated as “Remove” (down from 271 at last update) should be prioritized and removed in a timely manner. 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 4 trees which received a “Risk Assessment” status were in a location where they could pose an elevated risk to GPD patrons. These are trees which have developed defects and require a more in-depth inspection and analysis to determine GPD’s risk tolerance threshold and the need for mitigation efforts. It is recommended that a Level 2 Basic Risk Assessment or a Level 3 Advanced 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 55 trees in the “Hazard Prune” category should be pruned as soon as possible to mitigate a potential hazard risk. This number has been reduced from 65 in the last update.

The 536 trees in the “Prune-Priority” group are trees which are simply overgrown, or have parts which need to be removed, 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.

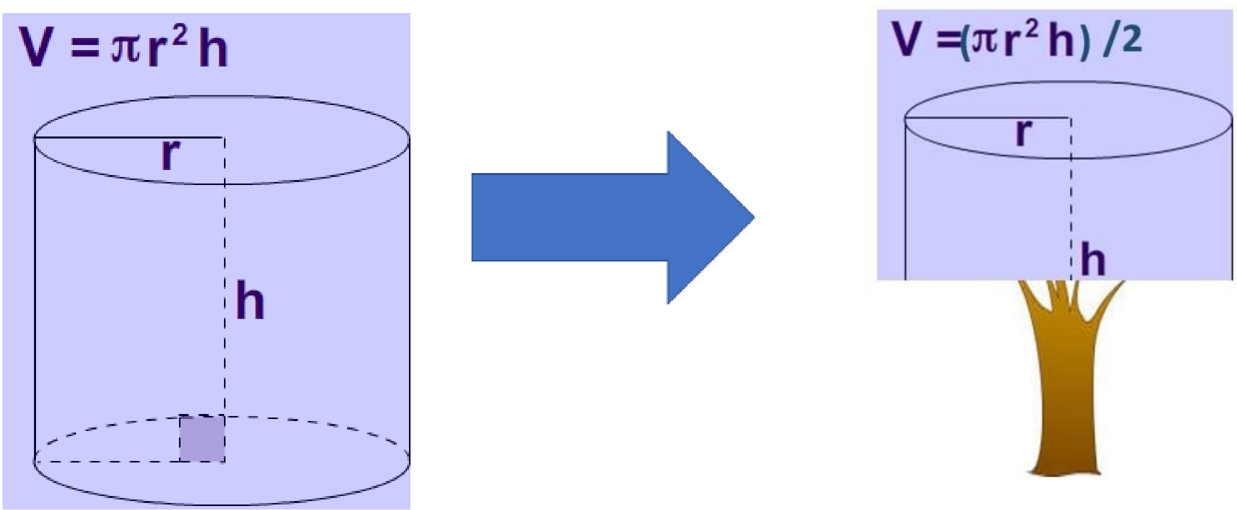
The 935 total trees in the “Monitor” categories can be viewed as being in a transitional phase. For the most part, the tree has an indiscernible defect, or shows signs of developing issues or general decline which must be observed. These trees should be reassessed periodically, and their maintenance status updated.

The 9 trees in the “Priority Maintenance” 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.

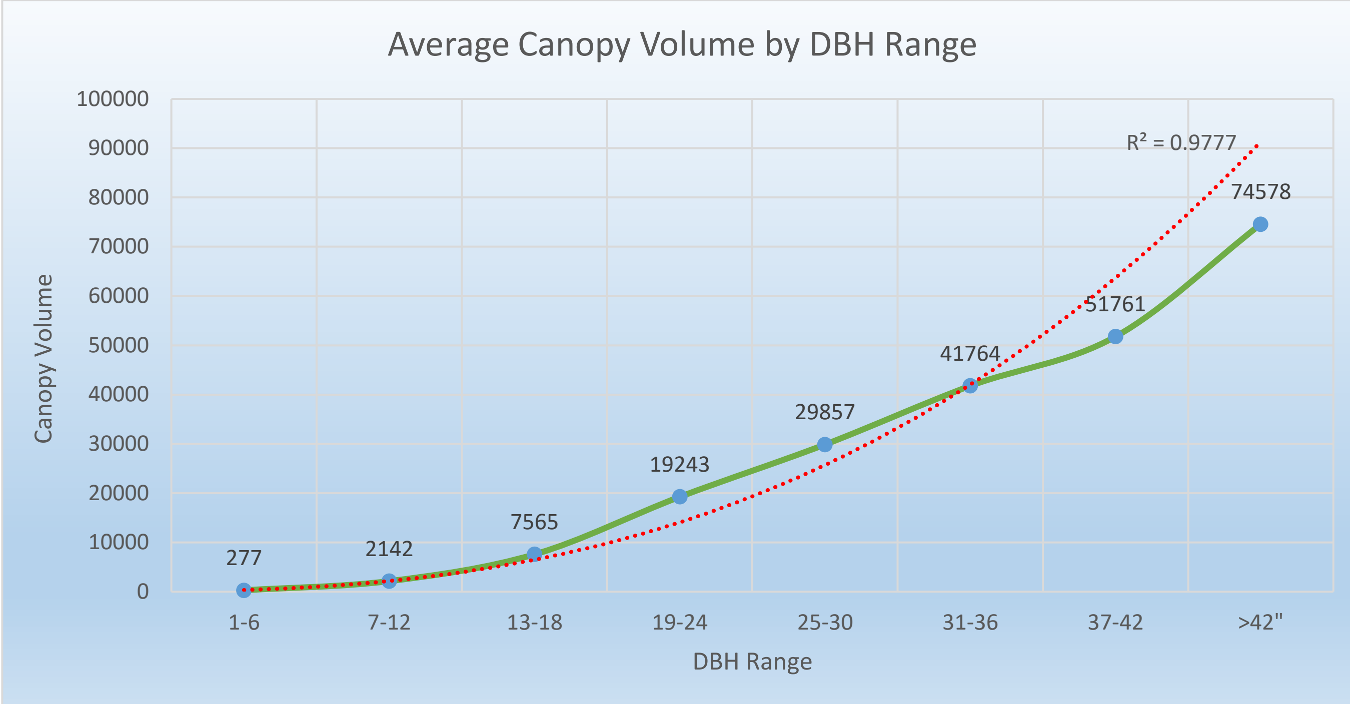
Canopy Volume Analysis

Many times, canopy area (2 dimensions) is assessed during tree inventories to determine the amount of tree coverage in a geographic area. However, when it comes to stormwater interception, Leaf Area Index (LAI), and other such metrics, we believe that canopy volume (3 dimensions) is a far better tool for determining tree benefits. It also reveals some fascinating things about tree longevity. Since we collected data on tree height and crown spread during these updates, we have included this analysis as well.

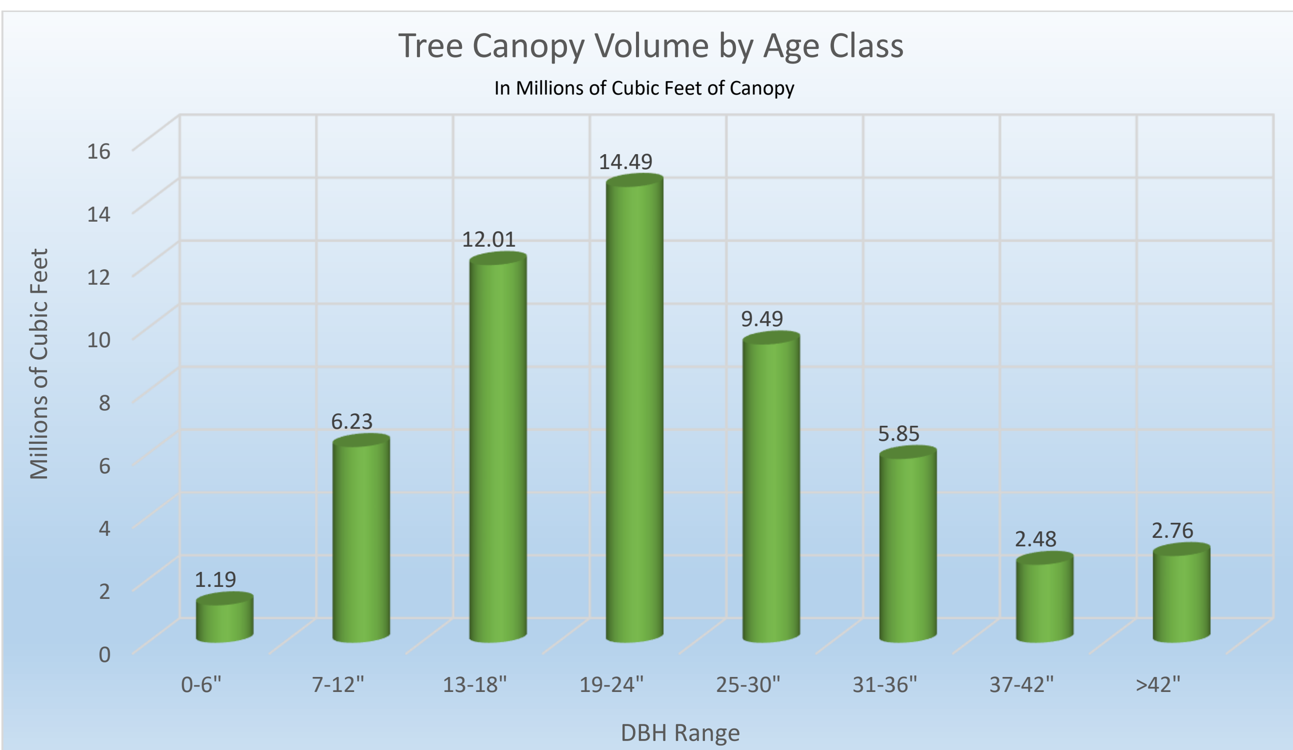
In order to calculate canopy volume, we utilized the calculation of the volume of a cylinder, based on the tree height and crown spread measurements, and divided the resulting number by half, to account for the fact that most tree’s canopies begin at approximately halfway up their total height (see illustration below).



By using this fairly rudimentary analysis, we can generalize what the total volume of the tree canopy is in GPD. Though the calculations involved with quantifying stormwater benefits and other ecological services are beyond the scope of this report, it can generally be said that increased canopy volume certainly provides more shade, carbon uptake and energy savings, and water storage in the crown, leading to reduced runoff during storm events.



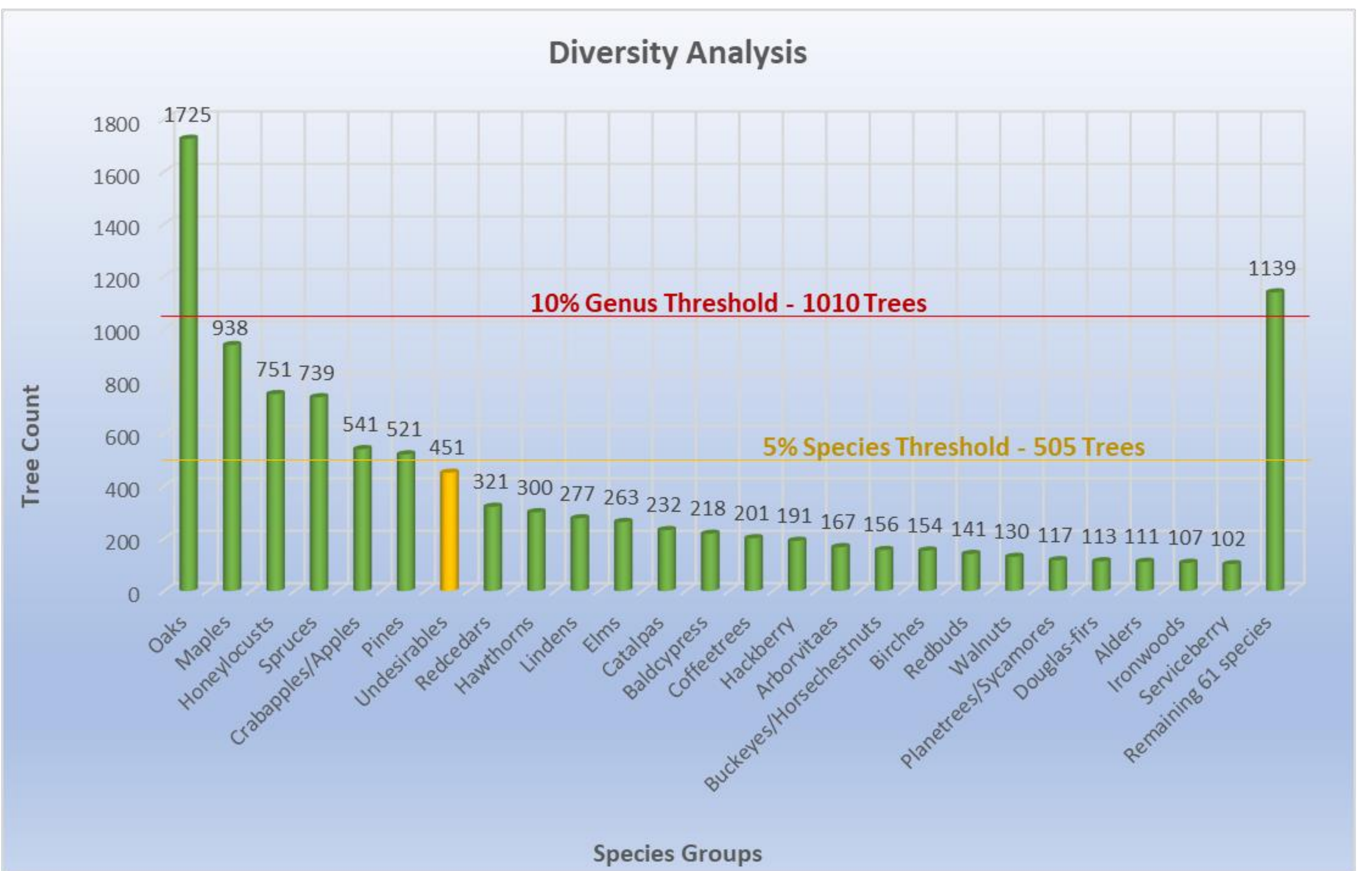
A tree's aboveground growth can be used as an overall indicator of its health and vigor. As can be seen from the above chart for GPD's inventory, there are several very interesting trends when it comes to tree size (age) and canopy volume. First, we see slow increases in canopy at the smaller diameter range, from 1-12" DBH. This makes sense, as the tree is still developing its root system during these formative years which will eventually lead to increased canopy growth. From the 13" to approximately low-30" size range, we see rapid increases in canopy volume as the tree puts on above ground growth, which is a direct result of its increased photosynthetic capability. Greater leaf area produces more energy, and the tree is able to grow much more rapidly. Eventually, at approximately the 32" mark, tree growth begins to decline. This again makes sense as the urban environment with its pollutants and oftentimes poor soils which can prohibit continued vigor.



Where the line graph of canopy volume shows the average canopy volume at each DBH range, this graph of gross canopy volume at each DBH range tell an even more compelling story. The line graph shows us that canopy volume generally increases with tree age and size, a fact which is easy to understand, but even more tangible when quanitifed. As canopy volume increases, CO2 uptake increases, more stormwater is intercepted or evapotranspirated away, more shade or windblocking is provided, increasing energy savings, and more pollutants are intercepted by leaf area. This analysis is based on the updated population only, though once the entire tree inventory update has been completed, the resulting canopy volume charts will be much more informative.

Where the above bar graph becomes important is in the number of trees in each category. Even though canopy volume increases on a per tree basis as DBH increases, we can see more of a drop between the 19-24" and the 25-30" age class. If one were to reexamine the total number of trees at each of the age classes, it would be seen that the overall number of trees fluxuates in the same manner as canopy volume as illustrated in the bar graph above. The important fact here is that if GPD could get even 50% more trees to survive into the 25-30" age class, and then 50% more of those trees to survive into the 31-36" age class, and so on, overall crown volume could increase by a significant amount. This would result in substantial and quantifiable savings for the community. A first step to encouraging this change to occur is to ensure that a high level of maintenance and a robust cyclical pruning program continues to be a priority for GPD trees. More importantly, the ability to move more trees into these larger DBH and volume ranges begins with planting the right tree in the right site. No additional maintenance beyond what GPD already performs is necessary. Targeted reforestation and ongoing planning for new tree plantings is the crucial element in the equation. For areas with limited below ground growing space, trees which are tolerant of lower soil volume should be planted. For areas with high exposure to salts and other pollutant, trees which are tolerant of these conditions should be planted. Areas with predominantly wet or dry soils should have trees planted which are tolerant of these conditions. Planting the right tree in the right site is of paramount importance in allowing trees to live more productive lives in urban situations. Performing planting site analysis to determine available growing space, light levels, salt and nutrient loading, and basic soil characteristics before selecting trees will allow these trees to live longer and more vigorous lives.

Diversity Statistics



As mentioned in past reports, the tree population at Glenview Park District is incredibly diverse, and we continue to commend GPD for this great achievement and we encourage this continued commitment going forward.

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% or 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.

Oak species account for just over 17% of GPD's tree population and while Oak's are native and desirable species, the amount of Oak species still exceeds the recommended 10% population cap for a single genus, and has continued to climb slightly through the last several updates. Although not problematic, it is recommended that GPD continue to diversify among Oak species.

We often see Maple species over-represented in tree populations because they are often a hardy and commonly available shade tree. However, GPD has made commendable efforts to keep the Maple species at more appropriate levels. Pine and Spruce trees, many of which are affected by a variety of local pests and pathogens, are also still two of the higher represented genera in the population however, there has also been a steady decline. Only three singular species exceed the recommended 5% species threshold and include: Honeylocust, Burr Oak, and Swamp White Oak. The 451 trees that were classified in the "Undesirable" tree category consists of species that are invasive and/or have fast-growing or weak-wooded characteristics that make them unwanted in the urban landscape such as Cottonwood, Mulberry, Buckthorn, Siberian Elm, Black Locust, and Boxelder. The number of undesirables has continually decreased annually and went from 483 to 451 since the last update, which is another commendable effort by GPD.

The table below, which lists species that each account for less than 1% of the total tree population, can be used as a resource when choosing future species to plant. This list is limited and does not represent the other options available for planting in this region. Going forward, GPD should continue to take a targeted approach when it comes to choosing new species to plant in its parks and focus on planting species that are less represented in the tree population.

AMERICAN HORNBEAM	74		BEECH-AMERICAN	21		PERSIAN IRONWOOD	6
DOGWOOD-CORNELIAN	71		HICKORY-PECAN	21		SEVENTH SON FLOWER	6
PEAR-CALLERY	71		FRINGETREE	19		DOGWOOD-SPP	5
LILAC-TREE	64		SWEETGUM	19		KATSURA	5
ASH-WHITE	60		BLACKGUM	18		LARCH	5
GINKGO	60		FIR-SPP	17		MAGNOLIA-CUCUMBER	4
YELLOWWOOD	41		WITCH HAZEL	17		UNKNOWN	4
AMUR CORKTREE	37		MAGNOLIA-TREE	13		GOOSEBERRY	3
DAWN REDWOOD	35		PAWPAW	13		HARDY RUBBERTREE	3
MAGNOLIA-SHRUB	34		SUMAC	11		HAZELNUT-TREE	3
YEW	32		HICKORY-BITTERNUT	9		ASH-BLACK	2
BEECH-EUROPEAN	30		PERSIMMON	9		DOGWOOD-PAGODA	2
HICKORY-SHAGBARK	30		ZELKOVA	9		PAGODATREE	2
FIR-CONCOLOR	28		ASH-GREEN	8		SASSAFRAS	2
PLUM-SPP	27		CHESTNUT-CHINESE	8		SIBERIAN PEASHRUB	2
TULIPTREE	26		VIBURNUM-SPP	8		CEDAR OF LEBANON	1
CHERRY-SPP	25		AMUR MAACKIA	6		GOLDEN RAINTREE	1
ASH-BLUE	24		EUROPEAN HORNBEAM	6		PEAR-EDIBLE	1
JUNIPER	23		LILAC-IVORY SILK	6		PLUM-PURPLELEAF	1
HEMLOCK-EASTERN	22		MAGNOLIA-STAR	6		SMOKETREE	1
LILAC-SPP	22						

Conclusion

It has been a pleasure for Great Lakes Urban Forestry Management to provide this tree inventory update, data analysis, and executive summary to Glenview Park District. We look forward to the opportunity to partner with GPD 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.