2022 Tree Inventory
Executive Summary

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Introduction

On April 26, 2022, Certified Arborists from Great Lakes Urban Forestry Management (GLUFM) began collecting data for a comprehensive tree inventory of the village owned properties and parkway trees within the municipal boundaries of the Village of Forest Park, IL. This inventory resulted in a total count of 3,335 trees, 18 stumps, and 392 planting spaces. 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. Forest Park 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.

TREE STATUS
For this inventory, the status field includes whether the site is home to an Active Tree, a Planting Space, or a Stump.

ADDRESS
The address was recorded as the numerical address at which a tree is located, based on the observed street address, or the listed street address of the GIS parcel data we have available to us.

STREET NAME
The street names conform to the names as listed on street signage. The street name is for the address at which the parcel is listed, regardless of how the buildings on the lot are oriented (if on a corner lot).

RELATIVE LOCATION (SITE)
All trees are listed by zone, address, street name, on street name, and the following site prefixes, which determine where exactly on a property the tree is located:

F – Front of the property
R – On the right side of the property
L – On the left side of the property
B - In the back of the property
M - On a median in the center of a street
A – Across from an address

X and Y
These are the X and Y coordinates of the tree location, recorded in the NAD 1983 State Plane Illinois East FIPS 1201 (Feet) coordinate system.

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).

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 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** – 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.

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.

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

Clearance		Branches are blocking/ touching Building, Sidewalk, Street, or Sign
Dead		Tree is dead or nearly so
Deadwood	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
Decay Column		Tree has visible or audible decay in central trunk(s)
Defect	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
Dieback		Tree crown is dying back
Girdling Object		A nondescript object is girdling the tree or tree part
Hanger		Branches are hanging in crown, partially attached or free hanging
High Location Value		Justification for Risk Assessment; tree is in prominent location and has ecological value
Included Bark		Tree branches have tight V-shaped union(s) and have developed bark inclusions
Insects/Disease		Tree has observable signs or symptoms of pests or pathogens
Lean		Tree is leaning at undesirable angle
Mechanical Damage		Basal damage caused by landscaping equipement, or other physical damage
New Planting		Justification for establishment pruning, staking, mulching, etc
Other		Other notable observance not listed, specifics noted in comments field
Overgrown		Excessive branch or sucker growth requiring priority pruning
Poor Form		Tree has poor architecture, often due to limited growspace or improper pruning
Roots	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
Rot	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
Mushroom/Conk		Visible fungal fruiting bodies
Topped		Tree had its apical meristem or terminal leader removed; typically due to poor pruning practice, utility pruning, or storm damage
Weak Trunk Union		Weak union caused by included bark or poor branching angles that have compromised structural stability
Wounds	Crown	Scaffold or secondary branch wounds affecting tree health and/or stability
	Trunk	Trunk wounds affecting tree health and/or stability
Utility Conflict		Pruning required due to interference with wires, street lamp, traffic light, or other utility
Sign Conflict		Pruning required due to obstruction of signage
Storm Damage		Tree has recent damage due to storm or winds such as torn limbs

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.

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

LAND USE
For the purposes of this inventory, land use designations include Agricultural, Commercial, Industrial, Institutional, Multifamily, Recreational, Single Family, Transportaion, and Other.

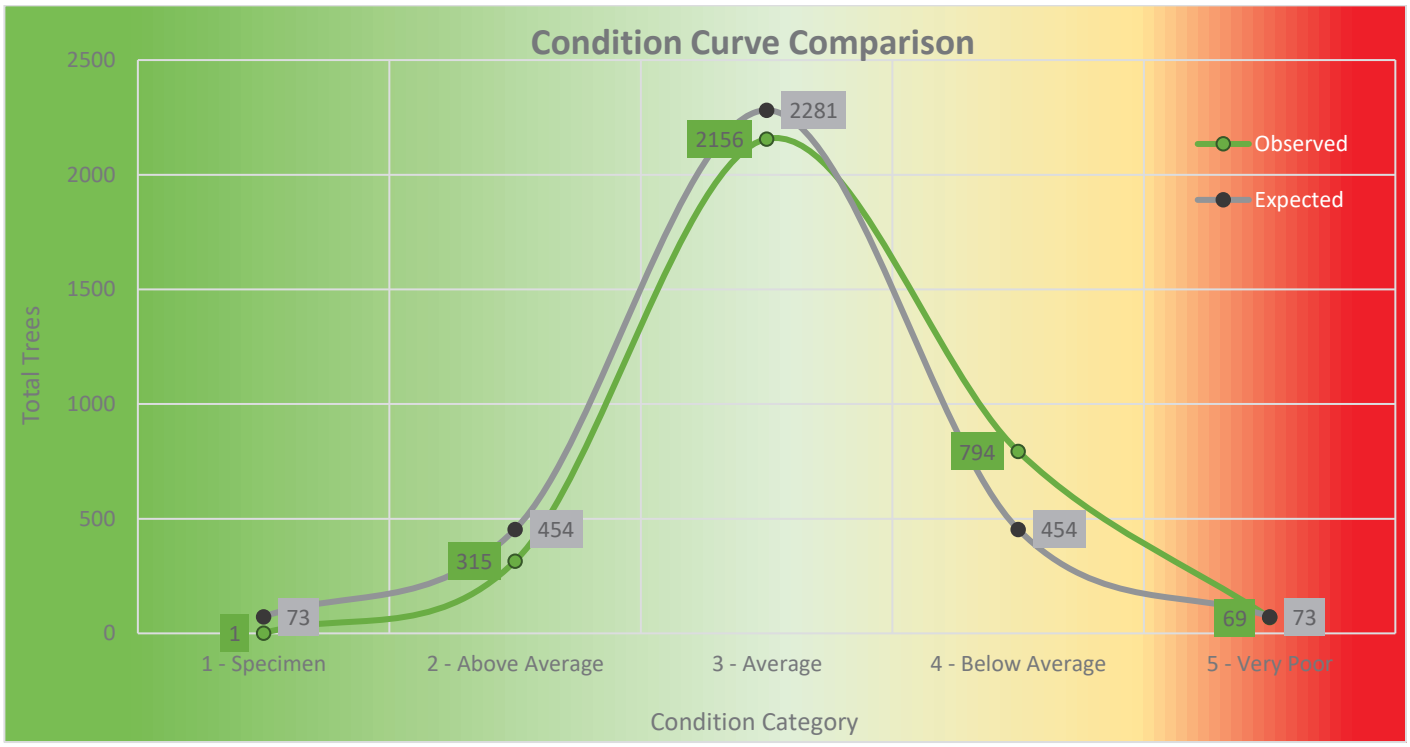
GROWING SPACE/PARKWAY SIZE
For street tree inventories, this field is used to record the distance from the curb to the sidewalk or such other soil volume conditions or restrictions.

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

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

Number of Trees Inventoried	3,335
Number of Stumps Inventoried	18
Number of Planting Spaces Inventoried	392
Total Number of Species	71
Total Diameter Inches	54,408"
Average Tree Diameter	16.31"
Average Tree Condition	3.18 (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 Forest Park inventory indicates a tree population that is in overall below average condition.

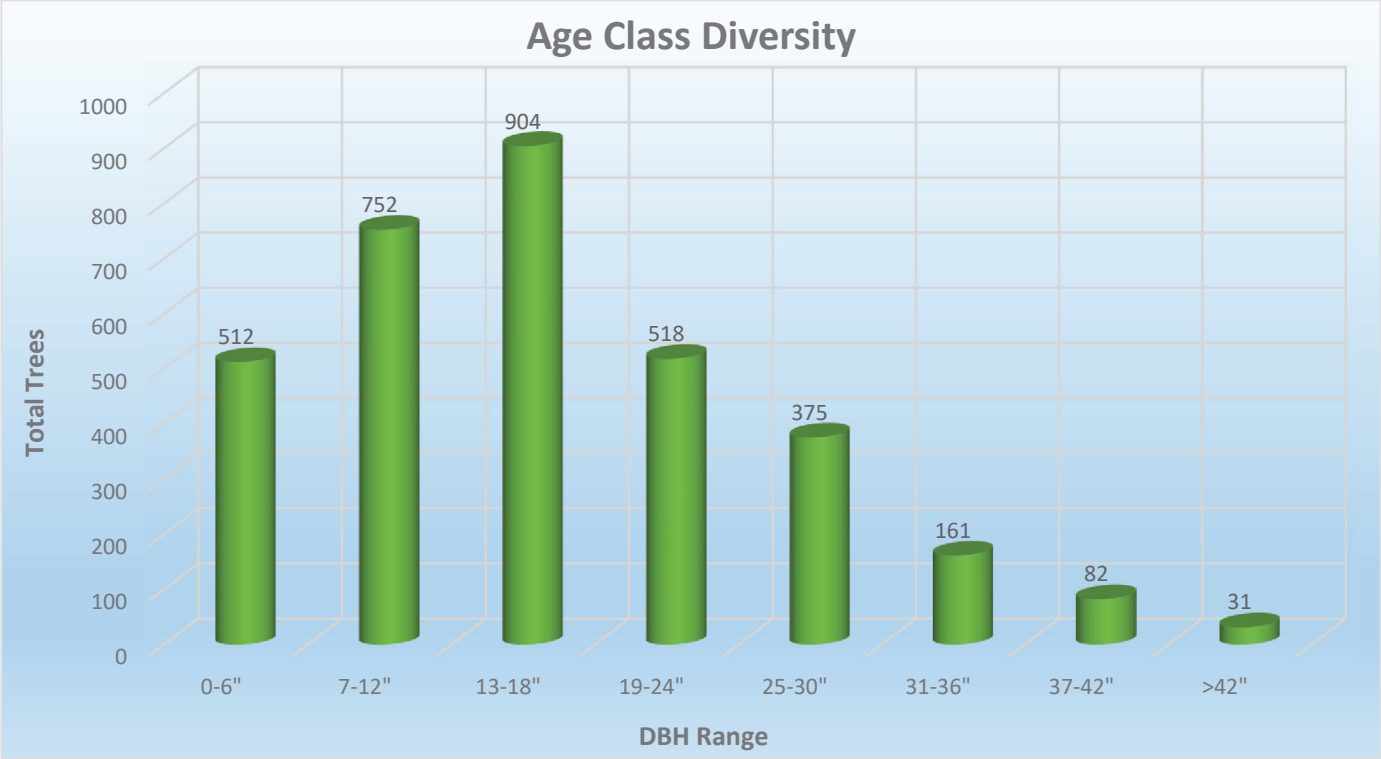
The Condition 1, or specimen, trees are much lower than would be predicted by the standard distribution alone, but we always expect that the specimen trees will come in lower than their statistical norm because of their rarity. A Condition 1 tree, by definition, must be at least 16" DBH (and generally much larger), have textbook perfect architecture for the species, and have no observable defects. Although almost half of the tree population exceeds the 16" DBH threshold, many mature trees have developed considerable deadwood, decay, or other structural defects. As these trees are pruned and maintained, they can eventually become Condition 2 or 1 trees. Also, 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 slightly lower than the expected norm. 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, be free of major defects, and also be over 8" DBH. Many of the trees in Forest Park that were eligible for a Condition 2 rating did not meet these standards. Looking toward the future, Forest Park 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.

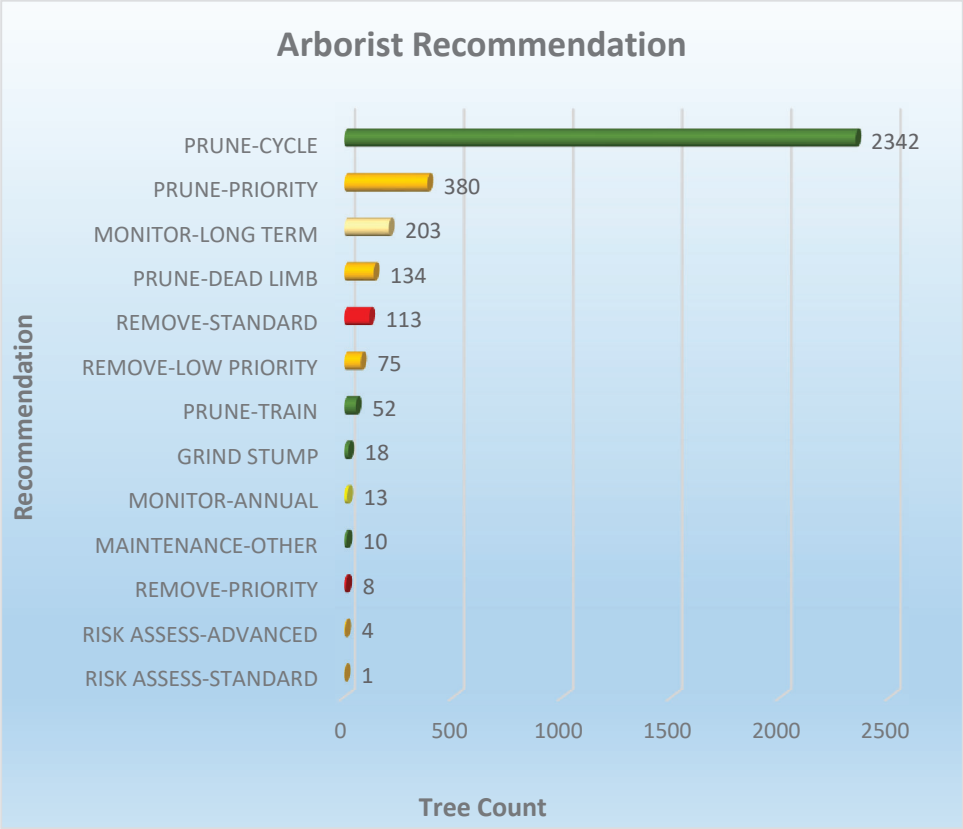
The Condition 4, or below average, trees are significantly higher than what would be statistically expected. This data represents a significant number of trees that have developed structural defects, decay, and deadwood. Forest Park can use the data from this inventory to locate Condition 4 trees and prioritize them for maintenance or removal. Forest Park can look to further decrease this number over the next few years as they move forward and attend to issues that have been identified.

The trees in the Condition 3, or average, are lower than the expected norm, mostly due to the significant number of below average trees. In the next few years, when the below average trees are pruned or removed, we would expect a number of these trees to move into the average or above average category.



This age class analysis chart illustrates a somewhat atypical trend in the overall age spread of a tree population seen in a municipal setting. Often, we see many trees being younger to middle aged and a relatively lower number of trees in the older age categories. The Forest Park tree population is largely middle aged with almost 50% measuring between 7-18" DBH. As shown above, 15% of the total population has 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. Approximately 23% of Forest Park's trees have a DBH of 7-12" which are generally considered to be about 15-25 years old. The 13-18" DBH category is the largest and it makes up over a quarter of the population and is considered to be approximately 25-35 years old. The 19-24" DBH category makes up just over 15% of the population and those trees are generally mature trees over 35-45 years old.

Trees measuring over 24" DBH account for less than 20% of the total tree population. The 649 trees in the 25"+ DBH categories are considered to be about 45-50+ years old. Many of these may be nearing the end of their natural life. Almost half 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. 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 Forest Park over the years and shows that the right trees are being planted in the correct locations. Also, the 392 planting spaces identified in the inventory gives Forest Park an opportunity to focus on tree planting going forward. As the younger trees continue to grow, Forest Park will 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 Forest Park tree population, the statistics displayed above show an encouraging trend overall. The majority of trees (70%) require only Cyclical Pruning on a regular basis, which is an overall desirable trait in a tree population.

There are 196 trees recommended for removal. The 8 trees in the Priority Removal category should be prioritized over other removals. The 113 trees designated as standard removals should be prioritized and removed in a timely manner. The 75 trees in the low priority removal 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 380 trees in the "Prune-Priority" group and the 134 trees in the "Prune-Dead Limb" group are trees which are simply overgrown, 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.

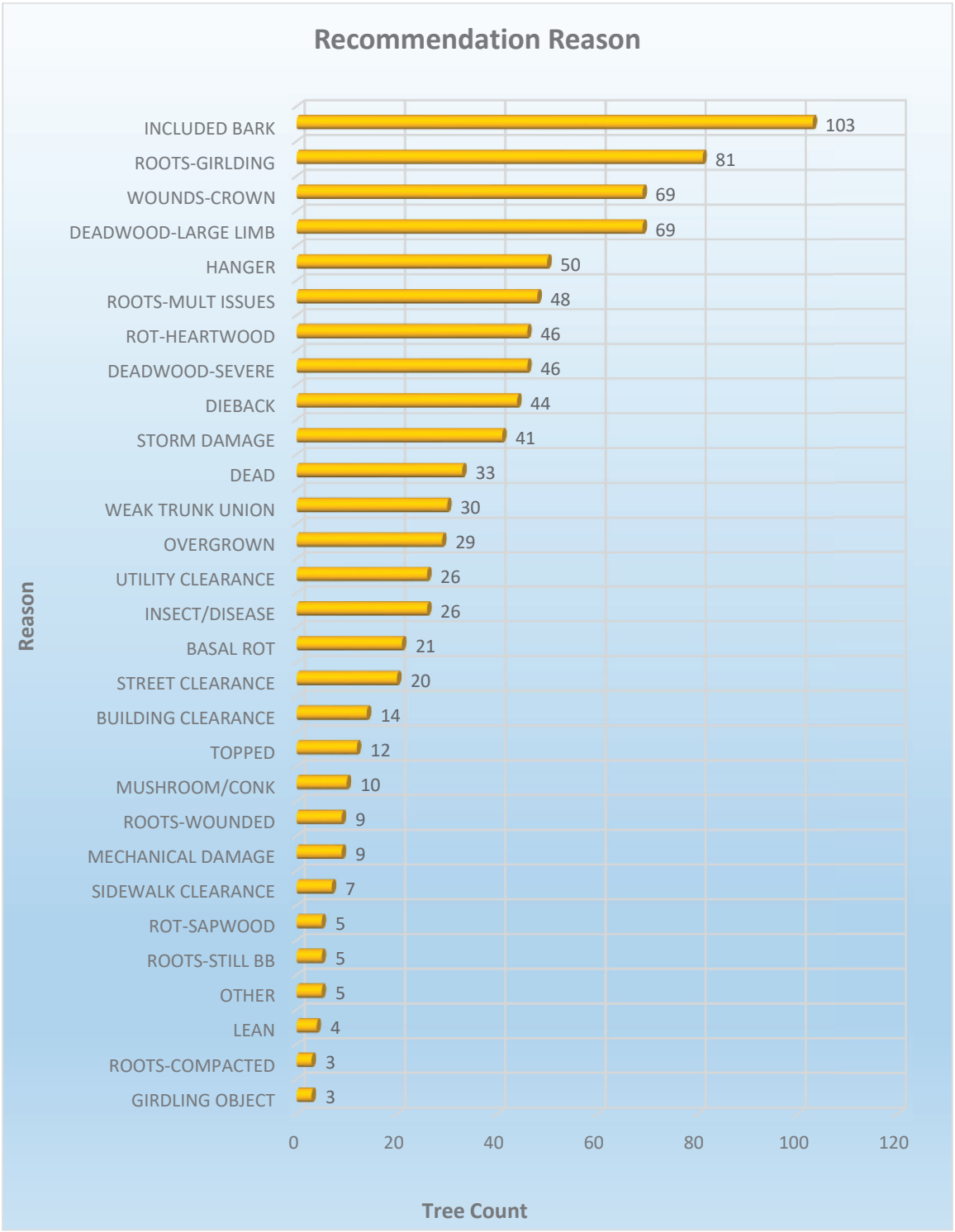
Trees categorized as "Prune-Train" are typically trees smaller than 8" DBH and have structural issues or are overgrown and require selective pruning to establish better architecture in the future. Establishment pruning, or the pruning of young trees to establish proper branching habit and structure,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

The 216 total trees in the two "Monitor" categories can be viewed as being in a transitional phase. For the most part, the tree has a significant 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 5 trees which received a "Risk Assessment" status were in a location where they could pose an elevated risk to Forest Park residents. These are trees which have developed defects and require a more in-depth inspection and analysis to determine Forest Park'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 10 trees in the "Maintenance-Other" category typically need some other form of maintenance not covered in the rest of the categories, mostly the removal of girdling objects, anchor staking, or no longer needed trunk wrapping. A description of the maintenance needed should be found in the reasons or comments field.

As will be discussed in detail in Forest Park's Urban Forestry Management Plan, a cyclical pruning program will ensure that each Village tree in Forest Park will be pruned on a regular basis. Proper pruning will help to improve the overall condition of the tree population.



The arborist recommendation reasons summarize the field observations into the main factors that justify the Arborist Recommendation and the condition rating of each tree. 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. Forest Park can use this inventory data to query specific defects and prioritize mitigation actions. This chart illustrates an interesting overview of the overall health, defects, and maintenance needs of Forest Park's tree population.

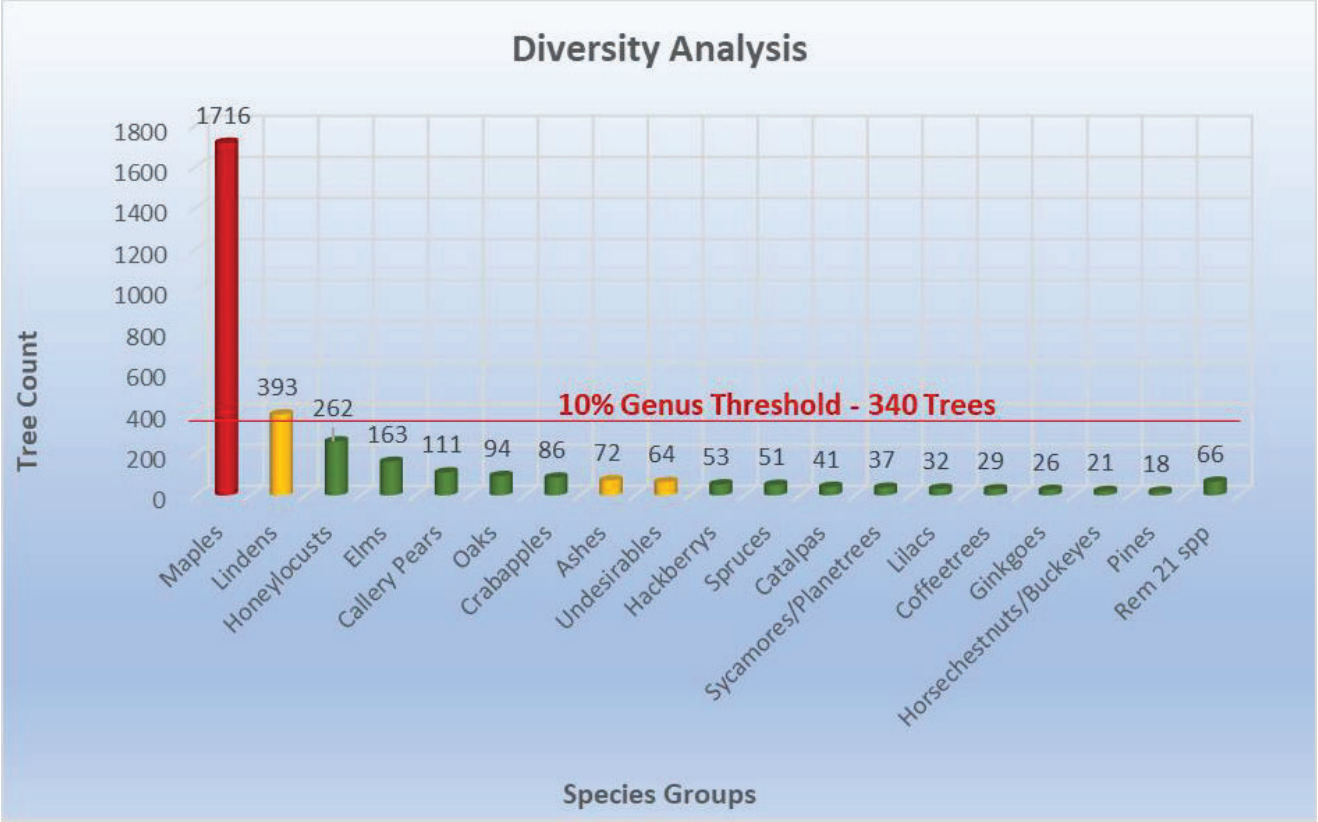
Risk Level Summary

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 Forest Park, it is recommended that Forest Park develop and implement a Tree Risk Assessment Policy so that consistency and accountability is successfully achieved.

As illustrated in the chart above, the vast majority of Forest Park trees were found to have no observable risk level. However, 132 trees were found to have some degree of risk. Of the 8 trees in the Substantial risk category, 4 are recommended for priority removal and 4 are recommended for priority pruning. There are 124 trees that were found to pose an elevated risk. Of these 124 trees, 91 can have the risk mitigated through pruning and 27 are recommended for removal. Also, 5 trees in the elevated risk category are recommended for an ISA Level 1 Basic or Level 2 Advanced Risk Assessment. Going forward, any tree that falls into the critical risk level category should receive immediate mitigating actions. Any trees that fall into the substantial risk level category should receive a Level 2 Risk Assessment and/or mitigating action. Any tree found to pose an elevated risk level should be monitored and/or inspected by Forest Park and a threshold of risk tolerance be established.

It is important to mention that the trees in the elevated risk category do not necessarily pose an immediate threat, however they have defects that have an elevated potential to worsen. Great Lakes Urban Forestry Management would be pleased to assist Forest Park in performing Level 2 Basic Risk Assessments or Level 3 Advanced Risk Assessments. A Tree Risk Assessment Policy will be discussed in more detail in the UFMP.

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% 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. That being said, we have included a 10% Genus threshold line on the diversity analysis graph above.

In general, the Forest Park tree population has overall moderate diversity with 72 different species represented here. However, one plant genus, which includes all Maple species, account for over 50% of Forest Park's tree population. It is quite common for Maple species to be the highest represented species in municipalities and in other urban settings because they are typically an adaptable and hardy shade tree. However, if a pest or pathogen that attacks only the Maple genus were introduced into our region, Forest Park could potentially lose half of its tree population. The Norway Maple species alone make up over 20% of Forest Park's entire population, and over a quarter of those trees are Below Average condition or worse. Norway Maple is followed by Red Maple, Littleleaf Linden, and Silver Maple making 52% of the entire population represented by 4 singular species. Other significant data trends include the considerable number of Callery Pear trees. Although the number of Callery Pear tree remains less than the recommended 5% species threshold, their representation in the top 10 species is significant due to research that has recently shown this species to be an invasive plant. Elm, Ash, and Spruce trees also make up a significant portion of the population and are particularly susceptible to a number of known pathogens and should be monitored for the presence or progression of these diseases. The 64 trees that were classified in the "Undesirable" tree category consist of species such as Tree of Heaven, Mulberry, Siberian Elm, Black Cherry, and Boxelder which are generally aggressively spreading and/or have weak-wooded characteristics that make them undesirable in the urban landscape.

This inventory also included the identification of 392 planting spaces in municipal ROW. A long-term Tree Planting Plan would be an excellent tool for Forest Park to pursue in the future. Such a plan would not only maintain and improve overall diversity by analyzing the current population and selecting species to plant that are underrepresented or not present in the population, but would also maximize the lifespan of trees planted by carefully matching a tree

species requirements and tolerances with each individual planting space. Trees that are well adapted to their growing conditions will establish more quickly, require less maintenance, and be healthier overall and more resistant to disease and insect problems. Proper planning through matching the right tree with the right planting space can help Forest Park protect its investment in each new tree and create a future tree population that is more resilient and diverse than the current one.

Although an in-depth diversity analysis is beyond the scope of this inventory executive summary, Forest Park can use the tables and graphs that have been provided as a reference when choosing species to plant in the future. The table below, which lists species that each account for less than 0.5% 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, Forest Park should plan to take a more targeted approach when it comes to choosing new species to plant in its parkways and properties and focus on planting a wider variety of tree species and genera.

EASTERN REDCEDAR	9		IRONWOOD	4		DOUGLAS FIR	1
EUROPEAN HORNBEAM	7		SERVICEBERRY-SPP	4		HAWTHORN-GREEN	1
BIRCH-WHITE	6		WALNUT-BLACK	4		HICKORY-SHAGBARK	1
AMERICAN HORNBEAM	5		ARBOR VITAE	2		MAGNOLIA-SAUCER	1
CHERRY-SPP	5		OTHER	2		PAWPAW	1
AMERICAN REDBUD	4		SWEETGUM	2		PLUM-SPP	1
HAWTHORN-SPP	4		BALDCYPRESS	1		YEW	1

Conclusion

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

GREAT LAKES URBAN FORESTRY MANAGEMENT
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Appendix A: All Trees

The table below is an itemized list of all tree species present in the Village of Forest Park 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 within the Village.

SPECIES	COUNT	% OF TOTAL	AVG DBH	AVG COND
MAPLE-NORWAY	732	21.95%	16.27	3.19
MAPLE-RED	368	11.03%	11.70	3.17
LINDEN-LITTLELEAF	334	10.01%	15.79	3.08
MAPLE-SILVER	323	9.69%	27.92	3.40
HONEYLOCUST	262	7.86%	18.77	3.21
MAPLE-AUTUMN BLAZE	176	5.28%	7.46	3.06
ELM-HYBRID	143	4.29%	10.48	2.83
PEAR-CALLERY	111	3.33%	8.86	3.14
MAPLE-SUGAR	90	2.70%	18.33	3.22
APPLE-CRAB SPP	86	2.58%	8.59	3.37
LINDEN-AMERICAN	58	1.74%	19.17	3.16
HACKBERRY	53	1.59%	28.19	3.13
SPRUCE-BLUE	46	1.38%	12.41	3.43
ASH-WHITE	42	1.26%	12.64	3.33
OAK-SWAMP WHITE	42	1.26%	9.38	2.88
CATALPA	41	1.23%	27.66	3.51
ELM-SIBERIAN	36	1.08%	30.19	3.67
LILAC-TREE	32	0.96%	5.09	3.00
SYCAMORE	31	0.93%	27.16	2.71
ASH-GREEN	30	0.90%	16.83	3.80
KENTUCKY COFFEETREE	29	0.87%	14.00	2.72
GINKGO	26	0.78%	19.04	3.00
MAPLE-MIYABEI	22	0.66%	6.23	3.09
OAK-BURR	19	0.57%	18.26	3.05
ELM-AMERICAN	18	0.54%	32.22	2.94
OAK-RED	15	0.45%	21.20	2.73
HORSECHESTNUT	14	0.42%	20.43	3.07
EASTERN REDCEDAR	9	0.27%	10.11	3.22
OAK-WHITE	9	0.27%	25.11	3.33
BUCKEYE-OHIO	7	0.21%	15.71	3.29
COTTONWOOD	7	0.21%	25.29	4.43
EUROPEAN HORNBEAM	7	0.21%	6.86	3.00
PINE-AUSTRIAN	7	0.21%	19.86	3.29
BIRCH-WHITE	6	0.18%	10.83	3.17
BOXELDER	6	0.18%	27.67	4.00
LONDON PLANETREE	6	0.18%	6.00	3.33
AMERICAN HORNBEAM	5	0.15%	6.20	2.80

CHERRY-SPP	5	0.15%	8.20	3.20
MULBERRY-SPP	5	0.15%	22.60	3.80
OAK-PIN	5	0.15%	20.20	3.20
PINE-RED	5	0.15%	18.40	4.40
SPRUCE-WHITE	5	0.15%	11.80	3.40
AILANTHUS	4	0.12%	32.25	3.50
AMERICAN REDBUD	4	0.12%	5.25	3.00
HAWTHORN-SPP	4	0.12%	7.50	3.50
IRONWOOD	4	0.12%	11.75	3.75
SERVICEBERRY-SPP	4	0.12%	10.00	3.00
WALNUT-BLACK	4	0.12%	14.00	3.00
MAPLE-AMUR	3	0.09%	8.33	3.00
OAK-CHINQUAPIN	3	0.09%	5.67	3.00
PINE-SCOTCH	3	0.09%	26.00	3.00
PINE-WHITE	3	0.09%	12.67	3.00
POPLAR-WHITE	3	0.09%	41.67	2.67
ARBOR VITAE	2	0.06%	16.50	3.00
CHERRY-BLACK	2	0.06%	25.00	4.00
MAPLE-PAPERBARK	2	0.06%	3.50	3.00
OTHER	2	0.06%	3.00	3.00
SWEETGUM	2	0.06%	24.00	2.50
BALDCYPRESS	1	0.03%	25.00	2.00
BUCKTHORN	1	0.03%	17.00	4.00
DOUGLAS FIR	1	0.03%	15.00	3.00
ELM-CHINESE	1	0.03%	4.00	3.00
ELM-SPP	1	0.03%	2.00	3.00
HAWTHORN-GREEN	1	0.03%	17.00	3.00
HICKORY-SHAGBARK	1	0.03%	22.00	4.00
LINDEN-SILVER	1	0.03%	21.00	3.00
MAGNOLIA-SAUCER	1	0.03%	3.00	3.00
OAK-ENGLISH	1	0.03%	2.00	3.00
PAWPAW	1	0.03%	2.00	3.00
PLUM-SPP	1	0.03%	14.00	4.00
YEW	1	0.03%	12.00	3.00