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March 6, 2021

Julia Magliozzo
Director of Operations
Ecogy Energy
315 Flatbush Avenue #393
Brooklyn, NY 11217

Re: 716 Kitchawan Road, Yorktown, NY
Tree Inventory + Evaluation Results

Dear Julia:

As requested, Paul Cowie + Associates (PC+A) inventoried and evaluated the condition of existing trees at Farm on February 24 – 25 and March 3 – 4, 2021.

The goals of this study were to:

1. Identify, measure, and evaluate the current health and structural condition of existing 'Protected Trees' within the designated tree removal areas;
2. Estimate carbon storage and sequestration benefits provided by these inventoried trees;
3. Develop a shortlist of tree species suitable for mitigation plantings based on existing site conditions and species performance.

The data collected and the recommendations made for each inventoried tree are presented in the attached spreadsheet. The following is an explanation of the data parameters included and an overview of our general finding and recommendations.

Tree Included

This tree inventory and evaluation was limited to trees within the proposed tree removal areas, as indicated with hatched lines on the attached aerial image. Shrubs, vines, and other vegetation within these areas were not inventoried and evaluated. No other trees in any other portions of the property, or on adjacent properties, were inventoried and evaluated.

Within the designated tree removal areas, trees were included based on whether they met the definition of a 'Protected Tree,' as per Chapter 270 of the Yorktown Town Code, *Trees*. Specifically, trees rooted on the subject private property were included if they possessed at least one stem measuring at least 8.0-inches in diameter (DBH). 'Street Trees' (defined by Town Code as trees with their base at least 50-percent within the public right-of-way) were included regardless of size.

A temporary aluminum tag hand-embossed with the corresponding tree ID number was attached to each of the trees inventoried. Tag numbers ranged from #1 to #166. Please note that tags #2.1, #2.2, and #139.1 were used for trees that were initially missed and then added on a second pass through to maintain sequence with other tag numbers in the area. Tag #120 was not used.

The approximate location of the tag number series are indicated on the attached aerial image map.

A total of 168 trees were individually inventoried and evaluated. This included 130 trees in the former nursery area near Kitchawan Road and 38 trees in areas scattered elsewhere on the farm.

Tree Species + Exotic Invasive Status

Each tree is identified in the attached data table by both its regionally accepted common name and its botanical name.

The invasive status of each species is indicated based on species index information published by the Lower Hudson Partnership for Regional Invasive Species Management and accessed via https://www.lhprism.org/species-information on February 26, 2021.

Tree Size + Age Classification

The diameter of each inventoried tree was measured with a diameter tape to the nearest one-tenth inch at a point 4.5-feet above ground level (DBH), or at the height indicated when branching or abnormal swellings at 4.5-feet would produce an inaccurate measurement.

In the case of multiple-stem trees, the diameter of each stem was measured and recorded, and the root sum squared of the stems (RSS = SQRT($D1^2$+$D2^2$+$D3^2$…)) was calculated to provide a single-stem equivalence for the purpose of determining critical root zone radii.

Total tree height, crown height, and crown width were measured using a Leica Disto D810 Touch laser distance meter.

- Total tree height was measured to the nearest whole foot from the ground to the highest main body foliage.
- Crown height was measured from the ground to the bottom of main body foliage at the outer edge of the crown and/or lowest scaffold branch (whichever came first); individual low hanging small branches were excluded.
- Crown spread was measured at the widest point of the main body drip line; individual extended small branches were excluded. For asymmetrical crowns, the crown was measured in two opposing directions and the average of the two measurements was recorded.

The age class of each individually inventoried tree was recorded based on apparent age relative to the normal life expectancy of the species. Age was classified as 'Young' if the tree had exhausted up to 20% of the species' typical life expectancy, 'Mature' if it had exhausted 20% to 80% of the species' life expectancy, or 'Over-Mature' if it had exhausted more than 80% of the species' life expectancy.

Critical Root Zone (CRZ)

Critical root zone radius (CRZ) is the ground area around a tree which, if fully protected from soil compaction, grade changes, excavation, and other soil and root-damaging impacts, will ensure that tree health and structural integrity will not be compromised by construction activity. This information is provided to assist designers in locating grading, pavement, underground utilities, and other proposed improvements in a manner that minimizes impacts to any trees that may be retained.

Tree Condition

The condition of each inventoried tree was systematically evaluated and rated with consideration given to both the health and vigor and the structural integrity of the root system, primary stems, scaffold branching, small branches and twigs, and foliage.

A rating of 'Good', 'Fair', or 'Poor' was assigned separately to the health and vigor as well as to the structure and form of each inventoried tree. An 'Overall Condition' rating was then assigned, as follows:

- *Good:* The tree had no more than one or two minor health disorders and/or structural defects and was growing with normal vigor;

- *Fair:* The tree had 2 – 4 minor, or one major, health disorders and/or structural defects, and/or was growing with below-normal vigor or other limitations.
- *Poor:* The tree had several minor, or two or more major, health disorders and/or structural defects, and/or was declining in vigor.
- *Dead:* 75% or more of the crown was dead and any remaining live portions were deteriorating in health.

For the purpose of carbon benefits modeling, health and vigor ratings were converted to corresponding percentages (i.e. Good = 75% - 100%, Fair = 50% - 75%, Poor = 25% - 50%, Dead/Dying = 0% - 25%) and percent crown dieback and percent missing crown were recorded.

Please note that inspection of the inventoried trees was limited to visual observations from the ground and did not include climbing, aerial inspections, subsurface exploration, wood strength testing, or other advanced diagnostic techniques, which may be necessary to fully identify and evaluate the severity of certain health disorders and structural defects. Therefore, certain health disorders and/or structural defects may have not been noted or their extent may not have been fully determined.

Observations

The 'Disorders + Defects, Comments, Additional Recommendations' column contains various comments regarding the nature and severity of disorders and defects noted, particularly where they resulted in reduced condition ratings and/or recommendations for tree removal.

Additionally, this column contains additional treatment recommendations not included in the subsequent recommendation columns.

Maintenance Recommendations

It is PC+A's understanding that all existing trees within the designated areas are proposed for removal. Nevertheless, where appropriate, recommendations for pruning to remove dead, dying, damaged, and/or diseased limbs, pruning to improve branch architecture, cabling to reduce the risk of failure at certain branch defects, or other treatments were made based on conditions observed at the time each tree was evaluated.

This information is provided to further characterize the trees' current condition and provide guidance in the event that decisions are made to preserve any of the trees.

Terminology for various pruning types (e.g. 'Clean Crown', 'Raise Crown', 'Reduce Crown', 'Structural prune', etc.) correspond to ANSI A300 *American National Standard for Tree Care Operations.*

Each recommendation was prioritized based on the severity of potential safety risks first (e.g. large dead trees versus small dead trees, trees containing large dead limbs versus small dead branches, etc.) and addressing tree health and appearance second. The priority of each recommendation was ranked as High ('H'), Medium ('M'), or Low ('L'). These recommendations should be implemented in order of decreasing priority.

Tree Removal Recommendations

Definitive recommendations for tree removal were made for trees that were dead, had substantial dieback and/or limited remaining life expectancy, or possessed severe, irreparable structural defects that pose potential safety risks.

It is PC+A's opinion that those trees for which a specific removal recommendation was made should be removed whether or not the project proceeds. Further, it is PC+A's that those trees satisfy the 'Permit Not Required' exemptions provided in Section 270-5 of the Yorktown Town Code.

At this time, 15 trees are recommended for removal due to their deteriorated and irreparable condition and/or limited remaining life expectancy (trees #21, #28, #34, #43, #53, #97, #101, #127, #150, #151, #152, #153, #155, #156, #157).

Tree Inventory Summary

Count of Protected Trees by Lower Hudson PRISM invasive status and current condition (Viable Trees = trees to be removed for design reasons only; Non-Viable Trees = trees requiring removal regardless of the design because they are dead, dying, diseased, or in an otherwise deteriorated and irreparable health or structural condition and, therefore, exempt from permit requirements.

INVASIVE STATUS	VIABLE TREES TO BE REMOVED	NON-VIABLE TREES REQUIRING REMOVAL DUE TO CONDITION	TOTAL
Invasive	13	7	20
Non-Invasive	140	8	148
TOTAL	**153**	**15**	**168**

Carbon Benefits Estimation via iTree Eco

The *Eco* module of the *iTree* software suite was used to calculate current carbon storage and annual sequestration rates for the inventoried trees.

iTree was developed and is under active review and constant improvement by a consortium of industry organizations and experts led by the U.S. Forest Service. It is widely considered to be the current state of the art and is the most widely used tool for calculating the level and value of a variety of ecosystem services that trees provide in urban and rural settings.

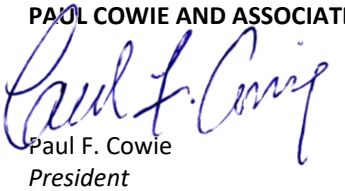
iTree Eco requires specific inputs to run its models. PC+A used the following data derived from the measurements described above to run the carbon models:

- Weather: 2018 weather data from the Westchester County Airport weather station in White Plains, NY.
- Species
- DBH: Diameter at breast height (4.5-feet above the ground), or the single-stem equivalent for multi-stem trees.
- Total Tree Height
- Crown Height
- Crown Width
- Crown Condition
- Crown Dieback / Missing Crown

The carbon storage and carbon sequestration models were run twice – once with the full dataset including all of the inventoried trees, and once with the invasive species and trees recommended for removal omitted. Reports produced by *iTree Eco* for the two datasets are attached.

Please do not hesitate to contact me if you have any questions or require any additional information.

Sincerely,
PAUL COWIE AND ASSOCIATES



Paul F. Cowie
President

PFC:pc
Encl.

INSERT SITE PLAN

#	SITE TYPE (SIZE)	SPECIES	LOWER HUDSON PRISM TIER 1-4 INVASIVE SPECIES	DIAMETER (in) (dead stems)	SINGLE-STEM EQUIVELENT (RSS)	TREE HEIGHT (ft)	CROWN HEIGHT (ft)	CROWN WIDTH (ft)	AGE CLASS	CRZ (ft radius)	HEALTH + VIGOR (%)	STRUCTURE + FORM	DIEBACK / MISSING CROWN (%)	OVERALL CONDITION	DISORDERS + DEFECTS, COMMENTS, ADDITIONAL RECOMMENDATIONS	CLEAN CROWN	RAISE CROWN	REDUCE CROWN	STRUCTURAL PRUNE	CABLE	CLEAR VINES	INSPECT	REMOVE (CONDITION)
1	Former tree nursery	Sugar maple *Acer saccharum*	---	16.9	16.9	67	25	35	Mature	21.1	80	Fair	5	Fair	Fence embedded in lower trunk (severe).	M							
2	Former tree nursery	Sugar maple *Acer saccharum*	---	12.8	12.8	75	30	32	Mature	16.0	85	Fair	10	Fair	---								
2.1	Former tree nursery	Sugar maple *Acer saccharum*	---	10.7	10.7	79	31	19	Young	10.7	85	Fair	10	Fair	---	M							
2.2	Former tree nursery	Sugar maple *Acer saccharum*	---	10.7	10.7	53	13	31	Young	10.7	60	Fair	10	Fair	---								
3	Former tree nursery	Cucumber magnolia *Magnolia acuminata*	---	13.0	13.0	81	57	18	Mature	13.0	65	Fair	10	Fair	---	M							
4	Former tree nursery	Sugar maple *Acer saccharum*	---	9.4	9.4	72	33	20	Young	9.4	80	Fair	15	Fair	Fence embedded in lower trunk (severe).								
5	Former tree nursery	Cucumber magnolia *Magnolia acuminata*	---	13.0	13.0	67	42	20	Mature	13.0	85	Fair	10	Good	---	M							
6	Former tree nursery	Cucumber magnolia *Magnolia acuminata*	---	12.1	12.1	78	54	16	Mature	12.1	60	Fair	10	Fair	---	M							
7	Former tree nursery	Sugar maple *Acer saccharum*	---	8.0, 6.2	10.2	55	22	27	Young	10.2	85	Fair	10	Fair	---								
8	Former tree nursery	Cucumber magnolia *Magnolia acuminata*	---	19.8	19.8	94	33	43	Mature	19.8	65	Good	10	Fair	---	H							
9	Former tree nursery	Sugar maple *Acer saccharum*	---	8.5	8.5	49	11	27	Young	8.5	85	Good	0	Good	---								
10	Former tree nursery	Black locust *Robinia pseudoacacia*	Tier 4	10.9, 7.8	13.4	72	37	24	Mature	10.1	60	Fair	15	Fair	Fence embedded in lower trunk (severe).	H							
11	Former tree nursery	Star magnolia *Magnolia stellata* or similar	---	8.0, 6.0, 4.2	10.9	26	7	28	Mature	13.6	85	Fair	10	Good	---								
12	Former tree nursery	Black birch *Betula lenta*	---	13.5	13.5	61	16	37	Mature	13.5	85	Fair	10	Fair	---	M							
13	Former tree nursery	Black locust *Robinia pseudoacacia*	Tier 4	8.4	8.4	64	27	23	Young	4.2	85	Fair	10	Fair	---								
14	Former tree nursery	Star magnolia *Magnolia stellata* or similar	---	9.0, 7.2, 7.1, 4.1	14.1	24	8	35	Mature	17.7	80	Fair	10	Fair	Decay in 9" trunk (severe).				M				
15	Former tree nursery	Red maple *Acer rubrum*	---	12.0	12.0	55	11	24	Mature	12.0	85	Fair	10	Good	---								
16	Former tree nursery	Star magnolia *Magnolia stellata* or similar	---	8.2, 7.2, 5.8	12.4	32	7	28	Mature	15.5	85	Good	10	Good	---								
17	Former tree nursery	Cucumber magnolia *Magnolia acuminata*	---	10.2	10.2	51	31	15	Young	7.7	60	Poor	20	Fair	Suppressed by adjacent trees (moderate).								
18	Former tree nursery	Cucumber magnolia *Magnolia acuminata*	---	16.2	16.2	81	39	22	Mature	16.2	85	Fair	10	Good	---								
19	Former tree nursery	Cucumber magnolia *Magnolia acuminata*	---	8.5	8.5	61	30	8	Young	6.4	40	Fair	20	Poor	Suppressed by adjacent trees (moderately severe).								
20	Former tree nursery	Cucumber magnolia *Magnolia acuminata*	---	18.0	18.0	82	40	23	Mature	18.0	85	Fair	10	Fair	---	M							

#	SITE TYPE (SIZE)	SPECIES	LOWER HUDSON PRISM TIER 1-4 INVASIVE SPECIES	DIAMETER (in) (dead stems)	SINGLE-STEM EQUIVELENT (RSS)	TREE HEIGHT (ft)	CROWN HEIGHT (ft)	CROWN WIDTH (ft)	AGE CLASS	CRZ (ft radius)	HEALTH + VIGOR (%)	STRUCTURE + FORM	DIEBACK / MISSING CROWN (%)	OVERALL CONDITION	DISORDERS + DEFECTS, COMMENTS, ADDITIONAL RECOMMENDATIONS	CLEAN CROWN	RAISE CROWN	REDUCE CROWN	STRUCTURAL PRUNE	CABLE	CLEAR VINES	INSPECT	REMOVE (CONDITION)
21	Former tree nursery	Cucumber magnolia *Magnolia acuminata*	---	12.7	12.7	68	43	18	Mature	12.7	60	Poor	10	Poor	Decay and crack in lower trunk (moderately severe).								H
22	Former tree nursery	Cucumber magnolia *Magnolia acuminata*	---	12.3	12.3	80	47	19	Mature	12.3	60	Fair	10	Fair	---	M							
23	Former tree nursery	Cucumber magnolia *Magnolia acuminata*	---	11.4	11.4	76	56	9	Mature	11.4	30	Fair	10	Poor	Dieback in scaffold limbs (moderate). Limited remaining life expectancy.	H							
24	Former tree nursery	Cucumber magnolia *Magnolia acuminata*	---	12.4	12.4	80	65	12	Mature	12.4	60	Fair	10	Fair	---	M							
25	Former tree nursery	Cucumber magnolia *Magnolia acuminata*	---	10.1	10.1	80	53	13	Mature	10.1	60	Fair	10	Fair	---	M							
26	Former tree nursery	Cucumber magnolia *Magnolia acuminata*	---	9.6	9.6	82	56	12	Young	7.2	60	Fair	10	Fair	---								
27	Former tree nursery	Cucumber magnolia *Magnolia acuminata*	---	11.5	11.5	74	50	12	Mature	11.5	60	Fair	10	Fair	---	H							
28	Former tree nursery	Sugar maple *Acer saccharum*	---	16.5	16.5	95	34	36	Mature	20.6	85	Poor	40	Poor	Split in main trunk (severe).								H
29	Former tree nursery	Sugar maple *Acer saccharum*	---	10.1	10.1	83	37	22	Young	10.1	85	Fair	10	Good	---								
30	Former tree nursery	Cucumber magnolia *Magnolia acuminata*	---	13.3	13.3	84	57	20	Mature	13.3	60	Fair	10	Fair	---	H							
31	Former tree nursery	Sugar maple *Acer saccharum*	---	8.0	8.0	66	32	20	Young	8.0	60	Fair	10	Fair	---								
32	Former tree nursery	Sugar maple *Acer saccharum*	---	15.9	15.9	90	27	37	Mature	19.9	85	Fair	10	Fair	---	M							
33	Former tree nursery	Cucumber magnolia *Magnolia acuminata*	---	14.7	14.7	85	53	21	Mature	14.7	85	Fair	10	Fair	---	M							
34	Former tree nursery	Cucumber magnolia *Magnolia acuminata*	---	16.3	16.3	74	51	22	Mature	16.3	55	Poor	10	Poor	Decay in lower trunk and buttress roots (severe).								H
35	Former tree nursery	Cucumber magnolia *Magnolia acuminata*	---	9.0	9.0	66	47	12	Mature	9.0	30	Fair	20	Poor	Dieback in upper trunk (moderate). Suppressed by adjacent trees (moderately severe). Limited remaining life expectancy.								
36	Former tree nursery	Cucumber magnolia *Magnolia acuminata*	---	13.0	13.0	81	45	19	Mature	13.0	85	Fair	10	Good	---								
37	Former tree nursery	Cucumber magnolia *Magnolia acuminata*	---	10.3	10.3	84	63	8	Mature	10.3	50	Poor	10	Fair	---	M							
38	Former tree nursery	Cucumber magnolia *Magnolia acuminata*	---	11.5 (6.7)	11.5	82	60	17	Mature	11.5	60	Fair	10	Fair	---	H							
39	Former tree nursery	Sugar maple *Acer saccharum*	---	13.5	13.5	80	42	22	Mature	16.9	60	Poor	50	Fair	Storm damage to main scaffold limbs (moderately severe).	M							
40	Former tree nursery	Sugar maple *Acer saccharum*	---	12.8	12.8	92	32	32	Mature	16.0	85	Fair	10	Fair	---	M							
41	Former tree nursery	Sugar maple *Acer saccharum*	---	20.1	20.1	88	12	55	Mature	25.1	65	Fair	25	Fair	Split wound in 1 upper trunk (severe).	M							
42	Former tree nursery	Cucumber magnolia *Magnolia acuminata*	---	10.4	10.4	72	48	12	Mature	10.4	60	Fair	10	Fair	---	M							
43	Former tree nursery	Cucumber magnolia *Magnolia acuminata*	---	12.3	12.3	57	45	15	Mature	12.3	60	Poor	10	Poor	Decay in lower trunk and root collar (severe).								H

#	SITE TYPE (SIZE)	SPECIES	LOWER HUDSON PRISM TIER 1-4 INVASIVE SPECIES	DIAMETER (in) (dead stems)	SINGLE-STEM EQUIVELENT (RSS)	TREE HEIGHT (ft)	CROWN HEIGHT (ft)	CROWN WIDTH (ft)	AGE CLASS	CRZ (ft radius)	HEALTH + VIGOR (%)	STRUCTURE + FORM	DIEBACK / MISSING CROWN (%)	OVERALL CONDITION	DISORDERS + DEFECTS, COMMENTS, ADDITIONAL RECOMMENDATIONS	CLEAN CROWN	RAISE CROWN	REDUCE CROWN	STRUCTURAL PRUNE	CABLE	CLEAR VINES	INSPECT	REMOVE (CONDITION)
44	Former tree nursery	Northern red oak *Quercus rubra*	---	15.8	15.8	54	12	38	Mature	15.8	85	Good	0	Good	---	M							
45	Former tree nursery	Cucumber magnolia *Magnolia acuminata*	---	11.3, 7.4	13.5	58	25	22	Mature	13.5	85	Fair	10	Good	---	M							
46	Former tree nursery	Cucumber magnolia *Magnolia acuminata*	---	13.8, 10.9, 9.4	19.9	71	34	27	Mature	19.9	85	Fair	10	Fair	---	M							
47	Former tree nursery	Tulip *Liriodendron tulipifera*	---	14.8	14.8	67	27	28	Mature	14.8	85	Fair	0	Good	---								
48	Former tree nursery	Cucumber magnolia *Magnolia acuminata*	---	8.3, 6.6	14.2	54	19	15	Young	10.6	55	Fair	10	Fair	Vine competition (moderately severe).	M							
49	Former tree nursery	Cucumber magnolia *Magnolia acuminata*	---	15.5	15.5	72	37	25	Mature	15.5	85	Fair	10	Fair	---	M							
50	Former tree nursery	Cucumber magnolia *Magnolia acuminata*	---	10.4	10.4	66	38	22	Mature	10.4	85	Fair	0	Good	---								
51	Former tree nursery	Cucumber magnolia *Magnolia acuminata*	---	17.5	17.5	77	38	28	Mature	17.5	85	Good	5	Good	---	H							
52	Former tree nursery	Cucumber magnolia *Magnolia acuminata*	---	14.7	14.7	75	38	24	Mature	14.7	60	Fair	10	Fair	---	M							
53	Former tree nursery	Cucumber magnolia *Magnolia acuminata*	---	9.2	9.2	52	39	9	Mature	9.2	20	Poor	60	Poor	Decay in lower trunk (moderately severe). Dieback in scaffold limbs (severe). Limited remaining life expectancy.								M
54	Former tree nursery	Cucumber magnolia *Magnolia acuminata*	---	12.1, 12.1	17.1	70	40	25	Mature	17.1	85	Fair	10	Fair	---	M							
55	Former tree nursery	Carolina silverbell *Halesia carolina*	---	12.1 @ 3.5'	12.1	57	19	30	Mature	12.1	85	Fair	10	Fair	---				M				
56	Former tree nursery	Black cherry *Prunus serotina*	---	10.0	10.0	52	15	31	Young	7.5	85	Fair	10	Fair	---								
57	Former tree nursery	Carolina silverbell *Halesia carolina*	---	14.2	14.2	59	28	28	Mature	14.2	60	Good	0	Fair	---	M							
58	Former tree nursery	Cucumber magnolia *Magnolia acuminata*	---	8.7, 7.0	11.2	65	40	15	Young	8.4	60	Fair	10	Fair	---	M							
59	Former tree nursery	Cucumber magnolia *Magnolia acuminata*	---	13.8	13.8	77	31	25	Mature	13.8	85	Good	0	Good	---								
60	Former tree nursery	Cucumber magnolia *Magnolia acuminata*	---	13.4	13.4	72	36	27	Mature	13.4	85	Fair	10	Good	---	M							
61	Former tree nursery	Cucumber magnolia *Magnolia acuminata*	---	11.4, 11.1	15.9	69	35	21	Mature	15.9	85	Fair	10	Fair	---	M							
62	Former tree nursery	Cucumber magnolia *Magnolia acuminata*	---	12.4, 11.2	16.71	65	31	26	Mature	16.7	75	Fair	15	Fair	1 weak crotch in lower trunk (moderately severe). Vine competition (moderately severe).	M							
63	Former tree nursery	Cucumber magnolia *Magnolia acuminata*	---	14.3	14.3	57	33	20	Mature	14.3	75	Good	15	Good	Vine competition (moderately severe).	M							
64	Former tree nursery	Cucumber magnolia *Magnolia acuminata*	---	16.3	16.3	69	36	22	Mature	16.3	75	Fair	15	Good	Vine competition (moderately severe).	M							
65	Former tree nursery	Cucumber magnolia *Magnolia acuminata*	---	10.5	10.5	43	27	17	Mature	10.5	55	Fair	15	Fair	Vine competition (moderately severe).	M							
66	Former tree nursery	Cucumber magnolia *Magnolia acuminata*	---	10.1, 10.0	14.2	61	23	22	Mature	14.2	85	Fair	10	Good	---	M							

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67	Former tree nursery	Carolina silverbell *Halesia carolina*	---	19.5	19.5	80	34	39	Mature	19.5	85	Fair	10	Fair	---				M				
68	Former tree nursery	Carolina silverbell *Halesia carolina*	---	8.5	8.5	46	15	25	Mature	8.5	85	Fair	10	Fair	---								
69	Former tree nursery	Black cherry *Prunus serotina*	---	10.9	10.9	59	30	28	Young	8.2	85	Fair	10	Fair	---								
70	Former tree nursery	Cucumber magnolia *Magnolia acuminata*	---	19.0, 11.6, 10.8	24.7	70	27	42	Mature	24.7	85	Fair	10	Good	---	M							
71	Former tree nursery	Black cherry *Prunus serotina*	---	11.7, 8.3, 5.2	15.3	71	27	31	Mature	15.3	85	Fair	10	Good	---	M							
72	Former tree nursery	Black cherry *Prunus serotina*	---	10.0, 9.0, 6.6	15.0	57	23	31	Mature	15.0	75	Fair	15	Fair	Vine competition (moderately severe).	M							
73	Former tree nursery	Tulip *Liriodendron tulipifera*	---	9.8	9.8	37	9	20	Young	7.4	85	Good	0	Good	---								
74	Former tree nursery	Cucumber magnolia *Magnolia acuminata*	---	10.3, 10.0, 9.2	17.1	53	29	22	Mature	17.1	55	Fair	15	Fair	Vine competition (moderately severe).	M							
75	Former tree nursery	Sugar maple *Acer saccharum*	---	8.0	8.0	41	12	25	Young	8	85	Good	10	Good	---								
76	Former tree nursery	Cucumber magnolia *Magnolia acuminata*	---	15.4, 14.5, 13.0	24.83	75	29	35	Mature	24.8	85	Fair	10	Fair	---	M							
77	Former tree nursery	Carolina silverbell *Halesia carolina*	---	11.5, 10.0, 8.5	17.5	65	38	29	Mature	17.5	65	Fair	10	Fair	---	M							
78	Former tree nursery	Amur cork tree *Phellodendron amurense*	Tier 2	8.4	8.4	44	18	26	Young	8.4	85	Fair	10	Fair	---	M							
79	Former tree nursery	Yulan magnolia *Magnolia denudata* or similar	---	9.9, 8.9, 8.9	16.0	55	27	32	Mature	20.0	85	Fair	10	Good	---								
80	Former tree nursery	Carolina silverbell *Halesia carolina*	---	16.3, 11.3	19.8	70	22	30	Mature	19.8	65	Fair	10	Fair	---	M							
81	Former tree nursery	Carolina silverbell *Halesia carolina*	---	13.0	13.0	79	28	20	Mature	13.0	60	Fair	10	Fair	---	M							
82	Former tree nursery	Carolina silverbell *Halesia carolina*	---	12.2, 5.9	13.6	72	26	25	Mature	13.6	65	Fair	10	Fair	---	M							
83	Former tree nursery	Carolina silverbell *Halesia carolina*	---	15.1	15.1	83	36	31	Mature	15.1	85	Fair	10	Fair	---	M							
84	Former tree nursery	Cucumber magnolia *Magnolia acuminata*	---	10.8	10.8	61	22	20	Mature	10.8	60	Good	10	Fair	---	M							
85	Former tree nursery	Black oak *Quercus velutina*	---	14.5	14.5	80	31	30	Mature	14.5	85	Good	5	Good	---	H							
86	Former tree nursery	Cucumber magnolia *Magnolia acuminata*	---	10.5, 5.5	11.85	63	34	18	Mature	11.85	85	Fair	10	Good	---								
87	Former tree nursery	Cucumber magnolia *Magnolia acuminata*	---	13.3	13.3	64	35	19	Mature	13.3	60	Fair	15	Fair	Vine competition (moderate).	M							
88	Former tree nursery	Cucumber magnolia *Magnolia acuminata*	---	12.6	12.6	63	26	18	Mature	12.6	85	Good	10	Good	---	M							
89	Former tree nursery	Cucumber magnolia *Magnolia acuminata*	---	11.5	11.5	56	24	22	Mature	11.5	85	Good	10	Good	---								

#	SITE TYPE (SIZE)	SPECIES	LOWER HUDSON PRISM TIER 1-4 INVASIVE SPECIES	DIAMETER (in) (dead stems)	SINGLE-STEM EQUIVELENT (RSS)	TREE HEIGHT (ft)	CROWN HEIGHT (ft)	CROWN WIDTH (ft)	AGE CLASS	CRZ (ft radius)	HEALTH + VIGOR (%)	STRUCTURE + FORM	DIEBACK / MISSING CROWN (%)	OVERALL CONDITION	DISORDERS + DEFECTS, COMMENTS, ADDITIONAL RECOMMENDATIONS	CLEAN CROWN	RAISE CROWN	REDUCE CROWN	STRUCTURAL PRUNE	CABLE	CLEAR VINES	INSPECT	REMOVE (CONDITION)
90	Former tree nursery	Black cherry *Prunus serotina*	---	13.2, 12.9, 10.4	21.2	73	30	34	Mature	21.2	75	Fair	15	Fair	Vine competition (moderately severe).	H							
91	Former tree nursery	Cucumber magnolia *Magnolia acuminata*	---	8.2, 7.5, 4.6, 4.0	12.7	47	29	21	Young	9.5	80	Fair	15	Fair	Vine competition (moderate).	M							
92	Former tree nursery	Yulan magnolia *Magnolia denudata* or similar	---	8.0, 7.0	10.6	26	13	23	Mature	13.3	85	Fair	10	Good	---	M							
93	Former tree nursery	Black cherry *Prunus serotina*	---	8.3	8.3	39	11	18	Young	6.2	85	Poor	10	Poor	Lean in main trunk (severe).								
94	Former tree nursery	Tulip *Liriodendron tulipifera*	---	8.0	8.0	48	23	19	Young	6.0	85	Good	0	Good	---								
95	Former tree nursery	Cucumber magnolia *Magnolia acuminata*	---	12.4	12.4	58	20	25	Mature	12.4	85	Good	10	Good	---	M							
96	Former tree nursery	Cucumber magnolia *Magnolia acuminata*	---	10.1	10.1	44	23	16	Young	7.6	80	Good	15	Good	Vine competition (moderate).	M							
97	Former tree nursery	Yulan magnolia *Magnolia denudata* or similar	---	8.1	8.1	35	23	15	Mature	10.1	20	Fair	25	Poor	Bark dieback on main trunk (moderately severe). Vine competition (severe). Limited remaining life expectancy.								M
98	Former tree nursery	Cucumber magnolia *Magnolia acuminata*	---	14.0	14.0	66	15	23	Mature	14.0	85	Good	10	Good	---	M							
99	Former tree nursery	Quaking aspen *Populus tremuloides*	---	8.1, 5.7	9.9	53	24	24	Young	7.4	85	Fair	10	Good	---								
100	Former tree nursery	Carolina silverbell *Halesia carolina*	---	15.3	15.3	78	38	32	Mature	15.3	85	Good	10	Good	---	M							
101	Former tree nursery	Cucumber magnolia *Magnolia acuminata*	---	12.8, 4.3	13.5	58	23	19	Mature	13.5	40	Poor	20	Poor	Decay in lower trunk and buttress roots (moderately severe). Apparent root disease infection (moderately severe).								H
102	Former tree nursery	Cucumber magnolia *Magnolia acuminata*	---	8.7, 4.7	9.9	52	12	16	Young	7.4	85	Fair	10	Good	---								
103	Former tree nursery	Carolina silverbell *Halesia carolina*	---	12.5, 9.0, 8.7, 8.5, 5.7	20.4	65	23	35	Mature	20.4	75	Fair	15	Fair	Vine competition (moderately severe).	M							
104	Former tree nursery	Carolina silverbell *Halesia carolina*	---	10.8, 7.8	13.3	69	41	20	Mature	13.3	85	Fair	10	Fair	---								
105	Former tree nursery	Carolina silverbell *Halesia carolina*	---	14.5	14.5	72	36	29	Mature	14.5	85	Good	10	Good	---	M							
106	Former tree nursery	Carolina silverbell *Halesia carolina*	---	9.0, 6.4	11.04	45	35	12	Mature	11.04	40	Poor	80	Poor	Dieback in 1 upper trunk (severe). Vine competiton (severe).	M							
107	Former tree nursery	Carolina silverbell *Halesia carolina*	---	8.8, 3.5	9.5	71	46	10	Mature	9.5	60	Fair	10	Fair	---								
108	Former tree nursery	Carolina silverbell *Halesia carolina*	---	12.6	12.6	56	16	28	Mature	12.6	85	Fair	10	Fair	---								
109	Former tree nursery	Carolina silverbell *Halesia carolina*	---	10.6, 8.3	13.5	66	41	25	Mature	13.5	85	Fair	10	Fair	---								
110	Former tree nursery	Carolina silverbell *Halesia carolina*	---	13.3, 4.5	14.0	70	35	32	Mature	14.0	85	Fair	10	Fair	---	M							
111	Former tree nursery	Cucumber magnolia *Magnolia acuminata*	---	11.8, 9.6	15.2	63	33	19	Mature	15.2	55	Fair	15	Fair	Vine competition (moderately severe).	M							

#	SITE TYPE (SIZE)	SPECIES	LOWER HUDSON PRISM TIER 1-4 INVASIVE SPECIES	DIAMETER (in) (dead stems)	SINGLE-STEM EQUIVELENT (RSS)	TREE HEIGHT (ft)	CROWN HEIGHT (ft)	CROWN WIDTH (ft)	AGE CLASS	CRZ (ft radius)	HEALTH + VIGOR (%)	STRUCTURE + FORM	DIEBACK / MISSING CROWN (%)	OVERALL CONDITION	DISORDERS + DEFECTS, COMMENTS, ADDITIONAL RECOMMENDATIONS	CLEAN CROWN	RAISE CROWN	REDUCE CROWN	STRUCTURAL PRUNE	CABLE	CLEAR VINES	INSPECT	REMOVE (CONDITION)
112	Former tree nursery	Cucumber magnolia *Magnolia acuminata*	---	13.0, 11.8, 4.1, 3.4	18.4	63	31	33	Mature	18.4	60	Fair	10	Fair	Decay in 1 lower trunk (moderate).	M							
113	Former tree nursery	Cucumber magnolia *Magnolia acuminata*	---	8.0	8.0	48	34	9	Young	6.0	85	Fair	10	Good	---								
114	Former tree nursery	Black oak *Quercus velutina*	---	10.0	10.0	60	14	19	Young	7.5	85	Good	10	Good	---								
115	Former tree nursery	Amur cork tree *Phellodendron amurense*	Tier 2	8.0	8.0	55	19	23	Young	8.0	85	Good	10	Good	---								
116	Former tree nursery	Cucumber magnolia *Magnolia acuminata*	---	9.4, 8.2	12.5	49	23	21	Mature	12.5	60	Fair	15	Fair	Vine competition (moderate).	M							
117	Former tree nursery	Cucumber magnolia *Magnolia acuminata*	---	9.6, 8.5	12.8	49	26	18	Mature	12.8	85	Fair	10	Fair	---	M							
118	Former tree nursery	Cucumber magnolia *Magnolia acuminata*	---	17.4, 16.6	24.1	62	26	32	Mature	24.1	55	Poor	10	Poor	Decay in lower trunk and buttress roots (moderately severe).	H							
119	Former tree nursery	American linden *Tilia americana*	---	16.9	16.9	76	36	33	Mature	21.1	50	Good	15	Fair	Vine competition (severe).	H							
120	---	*(Tag #120 not used)*	---	---	---	---	---	---	---	---	---	---	---	---	---								
121	Former tree nursery	Carolina silverbell *Halesia carolina*	---	10.3	10.3	64	34	19	Mature	10.3	55	Fair	10	Fair	Vine competition (moderately severe).								
122	Former tree nursery	Cucumber magnolia *Magnolia acuminata*	---	13.6	13.6	62	33	13	Mature	13.6	55	Good	15	Fair	Vine competition (moderately severe).								
123	Former tree nursery	Carolina silverbell *Halesia carolina*	---	15.6	15.6	64	23	27	Mature	15.6	85	Good	10	Good	---								
124	Former tree nursery	Carolina silverbell *Halesia carolina*	---	13.0, 12.3	17.9	68	27	31	Mature	17.9	80	Fair	10	Fair	Vine competition (moderate).	M							
125	Former tree nursery	Northern catalpa *Catalpa speciosa*	---	13.0	13.0	53	18	28	Mature	9.8	85	Good	0	Good	---	M							
126	Former tree nursery	Cucumber magnolia *Magnolia acuminata*	---	15.9, 13.9	21.1	59	14	37	Mature	21.1	85	Fair	10	Good	---	M							
127	Former tree nursery	Star magnolia *Magnolia stellata* or similar	---	8.5	8.5	31	5	24	Mature	10.6	50	Poor	15	Poor	Decay in lower trunk and buttress roots (severe). Lean in main trunk (moderate). Partially uprooted.								M
128	Former tree nursery	Black oak *Quercus velutina*	---	17.9	17.9	64	11	32	Mature	17.9	85	Fair	10	Good	---	M							
129	Former tree nursery	Pin oak *Quercus palustris*	---	22.4	22.4	69	12	41	Mature	22.4	85	Good	10	Good	---								
130	Lawn	Katsura tree *Cercidiphyllum japonicum*	---	16.3 @ 1.5'	16.3	43	6	31	Mature	20.4	85	Fair	0	Good	---				L				
131	Lawn	Katsura tree *Cercidiphyllum japonicum*	---	11.9 @ 1.5'	11.9	36	6	22	Mature	14.9	60	Fair	0	Fair	---				L				
132	Lawn	Katsura tree *Cercidiphyllum japonicum*	---	14.1 @ 1.5'	14.1	43	7	25	Mature	17.6	85	Fair	0	Good	---				L				
133	Lawn	Katsura tree *Cercidiphyllum japonicum*	---	13.5 @ 1.5'	13.5	43	6	28	Mature	16.9	85	Fair	0	Good	---				L				

#	SITE TYPE (SIZE)	SPECIES	LOWER HUDSON PRISM TIER 1-4 INVASIVE SPECIES	DIAMETER (in) (dead stems)	SINGLE-STEM EQUIVELENT (RSS)	TREE HEIGHT (ft)	CROWN HEIGHT (ft)	CROWN WIDTH (ft)	AGE CLASS	CRZ (ft radius)	HEALTH + VIGOR (%)	STRUCTURE + FORM	DIEBACK / MISSING CROWN (%)	OVERALL CONDITION	DISORDERS + DEFECTS, COMMENTS, ADDITIONAL RECOMMENDATIONS	CLEAN CROWN	RAISE CROWN	REDUCE CROWN	STRUCTURAL PRUNE	CABLE	CLEAR VINES	INSPECT	REMOVE (CONDITION)
134	Lawn	Kwanzan cherry *Prunus serrulata* 'Kwanzan'	---	14.8, 13.0, 13.0	23.6	29	5	36	Mature	29.5	85	Fair	0	Good	---	H							
135	Lawn	Crabapple *Malus spp.*	---	15.3	15.3	32	5	32	Mature	15.3	85	Good	15	Good	---				L				
136	Lawn	Crabapple *Malus spp.*	---	11.8, 9.2	15.0	31	8	29	Mature	15.0	60	Fair	30	Fair	Lean in lower trunk (severe). Vine competition (moderately severe).				L				
137	Lawn	Hawthorn *Crataegus spp.*	---	11.3	11.3	27	8	22	Mature	8.5	40	Fair	50	Poor	1 split wound in main trunk (moderately severe). Branch dieback in portions of crown (moderate).				L				
138	Farm field	River birch *Betula nigra*	---	13.9	13.9	43	7	34	Mature	13.9	85	Good	0	Good	---								
139	Farm field	Carolina silverbell *Halesia carolina*	---	8.0	8.0	28	6	20	Young	6.0	85	Good	10	Good	---								
139.1	Landscape	Sweetgum *Liquidambar styraciflua*	---	18.3	18.3	38	6	39	Mature	18.3	85	Good	0	Good	---	M							
140	Lawn	White mulberry *Morus alba*	Tier 4	17.0, 15.0	22.7	40	10	44	Mature	22.7	85	Fair	10	Fair	---	M							
141	Landscape	Black oak *Quercus velutina*	---	18.5	18.5	53	10	43	Mature	18.5	85	Fair	10	Fair	---				M				
142	Landscape	Sassafras *Sassafras albidum*	---	10.9	10.9	33	15	21	Young	5.5	55	Fair	45	Fair	Suppressed by adjacent trees (moderate).								
143	Landscape	Sassafras *Sassafras albidum*	---	10.1	10.1	32	11	24	Young	5.1	50	Poor	50	Fair	Suppressed by adjacent trees (moderately severe).								
144	Landscape	Black cherry *Prunus serotina*	---	17.9	17.9	57	17	40	Mature	17.9	60	Fair	20	Fair	---	H							
145	Landscape	Black cherry *Prunus serotina*	---	12.5	12.5	42	28	30	Mature	12.5	85	Fair	15	Good	---								
146	Landscape	Black locust *Robinia pseudoacacia*	Tier 4	16.2, 14.5	21.7	81	22	36	Mature	16.3	60	Fair	20	Fair	---	H							
147	Landscape	Black locust *Robinia pseudoacacia*	Tier 4	11.5	11.5	77	21	26	Mature	8.6	60	Fair	20	Fair	---	M							
148	Landscape	Black locust *Robinia pseudoacacia*	Tier 4	11.7	11.7	75	37	21	Mature	8.8	60	Fair	20	Fair	---								
149	Landscape	Black locust *Robinia pseudoacacia*	Tier 4	12.6	12.6	80	29	19	Mature	9.5	60	Fair	20	Fair	---	M							
150	Landscape	Black locust *Robinia pseudoacacia*	Tier 4	41.1 @ 3.5'	41.1	94	10	31	Over-mature	41.1	30	Poor	40	Poor	Decay in lower trunk (severe). Decay in multiple areas of upper trunks (moderate to moderately severe). Multiple splits and crack in main trunks. Dieback in 1 upper trunks and scaffold limbs (moderate).								H
151	Landscape	Black locust *Robinia pseudoacacia*	Tier 4	35.8	35.8	95	24	52	Over-mature	35.8	30	Poor	40	Poor	Decay in lower trunk (severe). Split between 2 main upper trunks (severe). Decay in multiple areas of upper trunks (moderate to moderately severe). Dieback in small branches and twigs (moderate).								H

#	SITE TYPE (SIZE)	SPECIES	LOWER HUDSON PRISM TIER 1-4 INVASIVE SPECIES	DIAMETER (in) (dead stems)	SINGLE-STEM EQUIVELENT (RSS)	TREE HEIGHT (ft)	CROWN HEIGHT (ft)	CROWN WIDTH (ft)	AGE CLASS	CRZ (ft radius)	HEALTH + VIGOR (%)	STRUCTURE + FORM	DIEBACK / MISSING CROWN (%)	OVERALL CONDITION	DISORDERS + DEFECTS, COMMENTS, ADDITIONAL RECOMMENDATIONS	CLEAN CROWN	RAISE CROWN	REDUCE CROWN	STRUCTURAL PRUNE	CABLE	CLEAR VINES	INSPECT	REMOVE (CONDITION)
152	Landscape	Black locust *Robinia pseudoacacia*	Tier 4	37.6	37.6	97	16	33	Over-mature	37.6	40	Poor	40	Poor	Decay in lower trunk (severe). Decay in multiple areas of upper trunks (moderate to moderately severe). Multiple splits and crack in main trunks. Split wounds in upper trunks from prior limb failures (severe).								H
153	Landscape	Black locust *Robinia pseudoacacia*	Tier 4	21.6	21.6	92	60	29	Mature	16.2	30	Poor	40	Poor	Decay in lower trunk (moderate). Decay in 1 main upper trunk (severe). Dieback in scaffold limbs (moderate).								H
154	Landscape	Black cherry *Prunus serotina*	---	12.7, 12.4	17.8	47	16	34	Mature	17.8	55	Poor	40	Fair	1 main upper trunk split off.	M							
155	Landscape	Black locust *Robinia pseudoacacia*	Tier 4	16.5	16.5	89	59	27	Mature	12.4	40	Poor	30	Poor	Decay in main trunk (moderately severe). Dieback in small branches and twigs (moderate).								M
156	Landscape	Black locust *Robinia pseudoacacia*	Tier 4	15.4	15.4	34	30	6	Mature	11.6	20	Poor	80	Poor	Decay in main trunk (severe). Upper trunk split off at approximately 34'. Very few remaining live branches.								H
157	Landscape	Black locust *Robinia pseudoacacia*	Tier 4	12.8	12.8	50	40	5	Mature	9.6	20	Poor	80	Poor	Upper trunk split off at approximately 50'. Bark dieback on main trunk (severe). Very few remaining live branches.								H
158	Landscape	Black locust *Robinia pseudoacacia*	Tier 4	25.4 (11.9)	25.4	92	10	40	Mature	19.1	60	Fair	30	Fair	Decay in scaffold limbs (moderate to moderately severe).	H							
159	Farm field	Gray willow *Salix atrocinerea*	Tier 2	8.5, 8.0, 7.7, 6.2, 5.4, 5.1	17.0	25	8	30	Over-mature	17.0	55	Poor	10	Poor	Tree partially uprooted in past (severe). Multiple cracks in main stems.	M							
160	Farm field	Eastern cottonwood *Populus deltoides*	---	9.4	9.4	37	6	20	Young	7.1	85	Good	0	Good	---								
161	Farm field	Red maple *Acer rubrum*	---	22.5	22.5	44	7	45	Mature	22.5	60	Fair	15	Fair	---	M							
162	Farm field	Red maple *Acer rubrum*	---	24.7 @ 3.0'	24.7	40	11	42	Mature	24.7	70	Fair	15	Fair	---	M							
163	Farm field	Red maple *Acer rubrum*	---	21.7, 20.7	30.0	59	12	60	Mature	30.0	85	Fair	15	Fair	---	M							
164	Farm field	Amur cork tree *Phellodendron amurense*	Tier 2	8.6	8.6	10	5	18	Young	8.6	85	Fair	30	Fair	---								
165	Farm field	Amur cork tree *Phellodendron amurense*	Tier 2	12.5, 10.2	16.1	31	10	4	Mature	20.2	85	Fair	20	Good	---	M							
166	Farm field	Eastern redcedar *Juniperus virginiana*	---	17.5	17.5	44	9	27	Mature	13.1	60	Good	20	Fair	---	M							

All Inventoried Trees

Carbon Storage of Trees by Species

Location: Yorktown, Westchester, New York, United States of America
Project: Kitchawan Farm, Series: 1, Year: 2021
Generated: 3/6/2021

Species	Carbon Storage (ton)	Carbon Storage (%)	CO_2 Equivalent (ton)
Red maple	6.4	6.9%	23.5
Sugar maple	6.2	6.7%	22.7
Black birch	0.4	0.5%	1.6
River birch	0.4	0.4%	1.5
Northern catalpa	0.2	0.2%	0.7
Katsura tree	0.9	0.9%	3.1
hawthorn spp	0.2	0.3%	0.9
silverbell spp	12.8	13.7%	46.9
Eastern red cedar	0.6	0.7%	2.3
sweetgum spp	0.9	1.0%	3.5
Tulip tree	0.6	0.7%	2.3
magnolia spp	1.0	1.1%	3.7
Cucumber tree	27.9	29.9%	102.3
Star magnolia	1.2	1.3%	4.5
Crabapple 'Sugar Tyme'	1.1	1.2%	4.2
White mulberry	0.9	0.9%	3.1
Amur corktree	0.7	0.8%	2.7
Eastern cottonwood	0.1	0.2%	0.5
Quaking aspen	0.1	0.1%	0.5
Black cherry	5.1	5.5%	18.7
Kwanzan cherry	2.2	2.3%	8.0
Pin oak	1.1	1.2%	4.1
Northern red oak	0.6	0.6%	2.1
Black oak	3.0	3.2%	11.1
Black locust	16.0	17.2%	58.8
Sassafras	0.5	0.6%	1.9
Pussy willow	1.4	1.5%	5.3
American basswood	0.4	0.4%	1.4
Total	**93.3**	**100%**	**342.0**

Due to limits of available models, i-Tree Eco will limit carbon storage to a maximum of 7,500 kg (16,534.7 lbs) and not estimate additional storage for any tree beyond a diameter of 254 cm (100 in). Whichever limit results in lower carbon storage is used.

All Inventoried Trees

Annual Carbon Sequestration of Trees by Species

Location: Yorktown, Westchester, New York, United States of America
Project: Kitchawan Farm, Series: 1, Year: 2021
Generated: 3/6/2021

Species	Gross Carbon Sequestration (ton/yr)	CO_2 Equivalent (ton/yr)
Red maple	0.11	0.39
Sugar maple	0.09	0.33
Black birch	0.01	0.02
River birch	0.02	0.06
Northern catalpa	0.01	0.02
Katsura tree	0.01	0.05
hawthorn spp	0.00	0.01
silverbell spp	0.01	0.04
Eastern red cedar	0.00	0.02
sweetgum spp	0.02	0.07
Tulip tree	0.03	0.10
magnolia spp	0.01	0.04
Cucumber tree	0.55	2.02
Star magnolia	0.00	0.00
Crabapple 'Sugar Tyme'	0.00	0.00
White mulberry	0.01	0.05
Amur corktree	0.02	0.08
Eastern cottonwood	0.01	0.03
Quaking aspen	0.01	0.02
Black cherry	0.13	0.48
Kwanzan cherry	0.02	0.08
Pin oak	0.01	0.04
Northern red oak	0.01	0.05
Black oak	0.06	0.23
Black locust	0.01	0.04
Sassafras	0.01	0.04
Pussy willow	0.00	0.00
American basswood	0.01	0.02
Total	**1.19**	**4.35**

Carbon Storage of Trees by Species

Location: Yorktown, Westchester, New York, United States of America
Project: Kitchawan Farm, Series: Removals + Invasives Omitted, Year: 2021
Generated: 3/6/2021

Species	Carbon Storage (ton)	Carbon Storage (%)	CO_2 Equivalent (ton)
Red maple	6.4	9.0%	23.5
Sugar maple	5.5	7.7%	20.1
Black birch	0.4	0.6%	1.6
River birch	0.4	0.6%	1.5
Northern catalpa	0.2	0.3%	0.7
Katsura tree	0.9	1.2%	3.1
hawthorn spp	0.2	0.3%	0.9
silverbell spp	12.8	17.9%	46.9
Eastern red cedar	0.6	0.9%	2.3
sweetgum spp	0.9	1.3%	3.5
Tulip tree	0.6	0.9%	2.3
magnolia spp	0.9	1.2%	3.3
Cucumber tree	26.2	36.6%	96.1
Star magnolia	1.1	1.5%	4.0
Crabapple 'Sugar Tyme'	1.1	1.6%	4.2
Eastern cottonwood	0.1	0.2%	0.5
Quaking aspen	0.1	0.2%	0.5
Black cherry	5.1	7.1%	18.7
Kwanzan cherry	2.2	3.1%	8.0
Pin oak	1.1	1.6%	4.1
Northern red oak	0.6	0.8%	2.1
Black oak	3.0	4.2%	11.1
Sassafras	0.5	0.7%	1.9
American basswood	0.4	0.5%	1.4
Total	**71.5**	**100%**	**262.2**

Due to limits of available models, i-Tree Eco will limit carbon storage to a maximum of 7,500 kg (16,534.7 lbs) and not estimate additional storage for any tree beyond a diameter of 254 cm (100 in). Whichever limit results in lower carbon storage is used.

Annual Carbon Sequestration of Trees by Species

Location: Yorktown, Westchester, New York, United States of America
Project: Kitchawan Farm, Series: Removals + Invasives Omitted, Year: 2021
Generated: 3/6/2021

Species	Gross Carbon Sequestration (ton/yr)	CO_2 Equivalent (ton/yr)
Red maple	0.11	0.39
Sugar maple	0.08	0.31
Black birch	0.01	0.02
River birch	0.02	0.06
Northern catalpa	0.01	0.02
Katsura tree	0.01	0.05
hawthorn spp	0.00	0.01
silverbell spp	0.01	0.04
Eastern red cedar	0.00	0.02
sweetgum spp	0.02	0.07
Tulip tree	0.03	0.10
magnolia spp	0.01	0.03
Cucumber tree	0.52	1.91
Star magnolia	0.00	0.00
Crabapple 'Sugar Tyme'	0.00	0.00
Eastern cottonwood	0.01	0.03
Quaking aspen	0.01	0.02
Black cherry	0.13	0.48
Kwanzan cherry	0.02	0.08
Pin oak	0.01	0.04
Northern red oak	0.01	0.05
Black oak	0.06	0.23
Sassafras	0.01	0.04
American basswood	0.01	0.02
Total	**1.10**	**4.04**