

AGENDA

UTILITIES SERVICE BOARD MEETING

Utilities Service Center Large Engineering
Conference Room
City of Bloomington Utilities
600 E Miller Dr
Bloomington, IN 47401

Seth Debro, President
Kirk White, Vice President
Jeff Ehman
Amanda Burnham
Jim Sherman
Megan Parmenter
Molly Stewart
David Hittle, ex officio
Matt Flaherty, ex officio

Monday, May 19th, 2025

4:00 p.m. Property & Planning Subcommittee

- White, Chair
- Ehman
- Sherman
- (alternate) Stewart

- I. Call to order
- II. Lake Griffy Timber Inventory Update - James Hall
- III. Petitions and communications*
- IV. Adjournment

* Public comment will be limited to 5 minutes per person

Forest Inventory and Appraisal

City of Bloomington

May 19, 2025

Prepared by Abraham Bear - Bear Forestry, LLC

6600 N. 933 W.

Deputy, IN 47230

Ph. 812-583-1004

Introduction

The forested property described in this report is owned by the City of Bloomington, Indiana. The area is comprised of three distinct parcels. Two noncontiguous parcels are located near Lake Lemon (referred to as Lemon North and Lemon South). The third parcel is located at Lake Griffy. While detailed species composition and timber quality vary slightly between the parcels, they are all three entirely forested with mature hardwood trees. The variability in quality and species composition between the three parcels is due to the land use history and soil conditions. Timber value is influenced by many factors including quality, species composition, access, topography, seasonality, and market demand.

Parcel Descriptions

Lake Griffy Forest

The forested area around Lake Griffy is comprised primarily of oak and hickory dominated hardwood timber. This mix includes other hardwood species, but various oaks and hickories dominate the canopy. The lowland area in the valley along Griffy Creek is comprised of bottomland hardwood species such as sycamore, black walnut, cottonwood, boxelder, silver maple and others. Timber quality is good throughout this parcel. Much of the forest is mature, but some stands of younger trees are present in the northeast area. There, on the ridgetops, trees are smaller in size and younger than in other areas of the forest. There are some very dry ridges where moisture is a limiting factor for tree growth. The area of merchantable timber in the Lake Griffy tract is 750 acres. This excludes the mature preserve south of the lake and west of Headley Road, the property west of Dunn Street, and a narrow buffer along the lake shore. The Lake Griffy Forest contains an extensive trail system and is used recreationally for hiking, nature observation, and fishing.

Lake Lemon North

This parcel is located on the west side of Lake Lemon and is bisected by a private graveled roadway. Timber quality is excellent in this tract. The entire forested area is dominated by white oak, a highly valuable species. Other common species are black oak, northern red oak, sugar maple, and hickory. The forest here is uniformly mature. No evidence of past timber management is visible. The smaller overall tract size of this and the Lake Lemon South tract make access easier and would result in a higher value per foot for the timber. The area of merchantable timber in Lemon North is 77.1 acres.

Lake Lemon South

This parcel is located on the south side of Lake Lemon, south of South Shore Drive and west of Shuffle Creek Road. It is bisected by a railroad, which limits access for timber harvesting. The timber is similar to that in Lake Lemon North but contains a lower percentage of white oak and more tulip poplar. This is primarily due to a differing land use history. The area of merchantable timber in this tract is 112.2 acres.

Methods

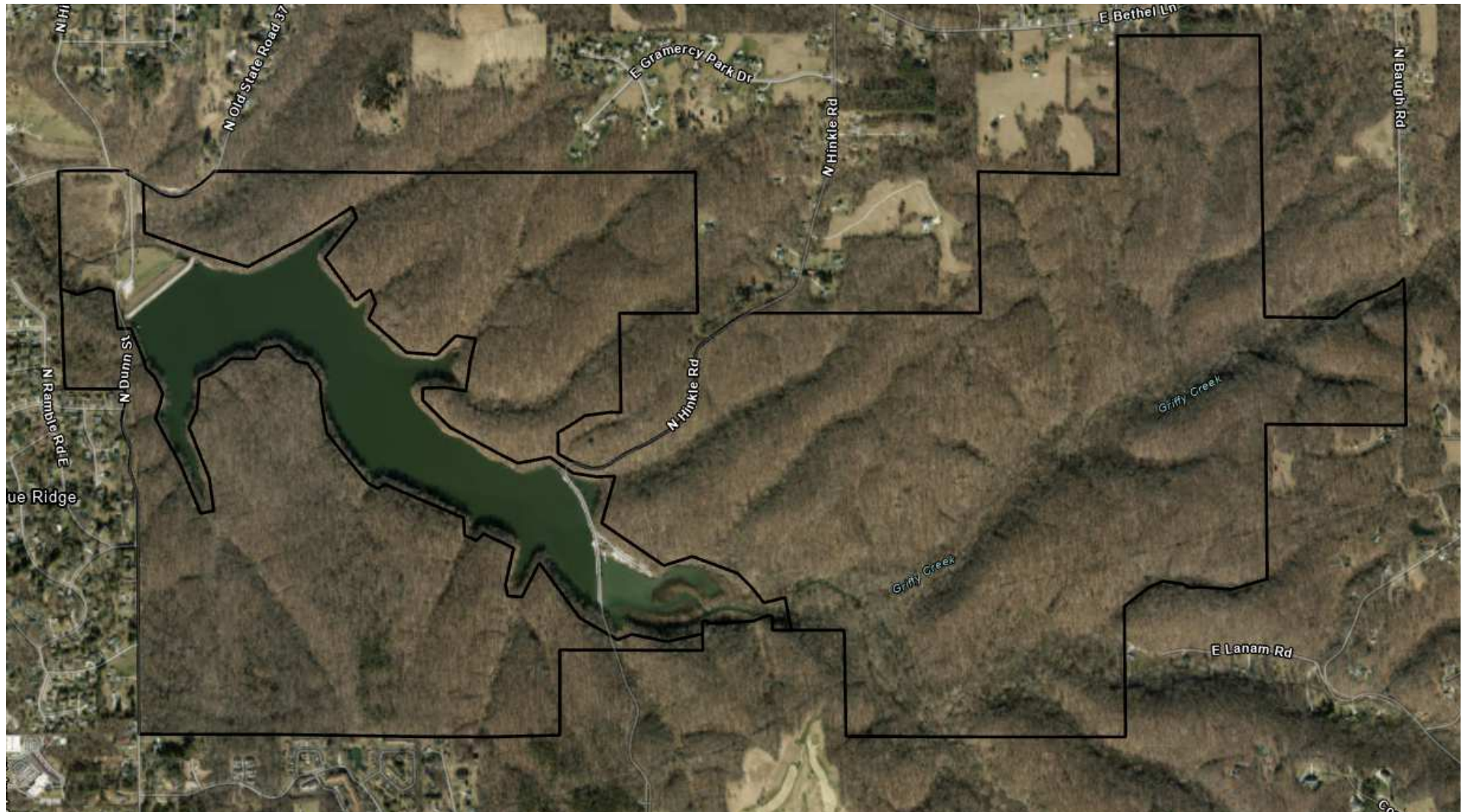
Timber was inventoried utilizing a variable radius plot sampling method with a 10-factor prism. The Lake Griffy Forest contained 188 sample points, Lemon North contained 22 points, and Lemon South contained 37 points. At each inventory point trees determined to fall within the plot were measured for diameter at breast height and merchantable height. Trees greater than 14 inches in diameter are considered merchantable, while those less than 14 inches are considered growing stock. At the completion of data collection, the plot data was processed with TCruise forestry software which expands the data to derive estimates of total number of trees and volume for each tract.

The value of standing timber is subject to many factors. Some factors influencing the value of a tree standing in the forest are species, the quality of the stem, growth rate, color and texture of the wood, distance from the roadway, distance from the mill, season, market demand, and quantity of timber on site. For this appraisal, the values were derived from comparable timber sales of Bear Forestry LLC, market reports, and predictions of future demand.

The following spreadsheets describe timber volume and value by tract. For appraisal use, there is a total volume and value. This represents the total value for all trees greater than 14 inches in diameter. The "Potential Harvest" values are 25 percent of the total merchantable volume and value. These figures represent what could be expected if the timber was selectively marked and sold on a single tree selection basis.

Inventory results

Griffy Lake



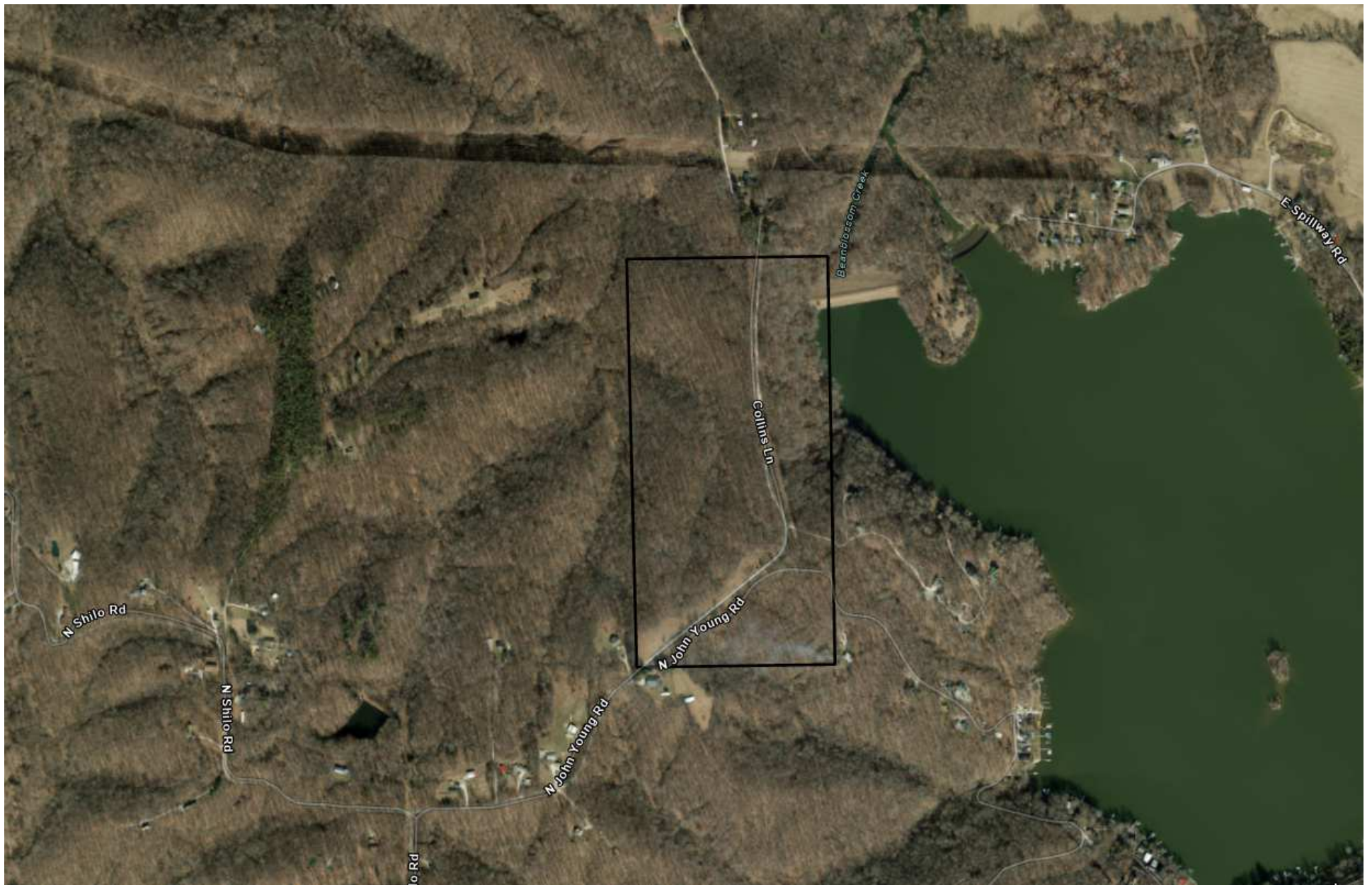
Griffy Lake

Species	No. Trees			Volume		Estimated Value		Potential Harvest	
	Growing Stock	Merchantable	Cull	MBF	BF	Per BF	Total	Volume	Value
American Beech	43,567	757	490	104.2	104,200	\$0.20	\$20,840.00	26,050	\$5,210.00
Aspen	613	330	0	42.1	42,100	\$0.20	\$8,420.00	10,525	\$2,105.00
Basswood	225	20	0	4.2	4,200	\$0.25	\$1,050.00	1,050	\$262.50
Bitternut Hickory	4,230	1,490	0	263.9	263,900	\$0.27	\$71,253.00	65,975	\$17,813.25
Black Cherry	139	163	57	31.1	31,100	\$0.28	\$8,708.00	7,775	\$2,177.00
Black Oak	4,069	6,200	206	1,820.2	1,820,200	\$0.35	\$637,070.00	455,050	\$159,267.50
Black Walnut	530	517	18	102.3	102,300	\$1.50	\$153,450.00	25,575	\$38,362.50
Blackgum	3,341	25	0	2.0	2,000	\$0.20	\$400.00	500	\$100.00
Boxelder	1,644	29	0	2.0	2,000	\$0.20	\$400.00	500	\$100.00
Buckeye	304	0	0	0.0	0	\$0.20	\$0.00	0	\$0.00
Cedar	364	0	0	0.0	0	\$0.10	\$0.00	0	\$0.00
Chinkapin Oak	43	161	0	21.1	21,100	\$0.60	\$12,660.00	5,275	\$3,165.00
Cottonwood	0	112	0	57.4	57,400	\$0.20	\$11,480.00	14,350	\$2,870.00
Elm	8,952	59	0	11.6	11,600	\$0.20	\$2,320.00	2,900	\$580.00
Hackberry	146	0	0	0.0	0	\$0.20	\$0.00	0	\$0.00
Ironwood	2,860	0	0	0.0	0	\$0.00	\$0.00	0	\$0.00
Musclewood	1,687	0	0	0.0	0	\$0.00	\$0.00	0	\$0.00
No. Red Oak	1,531	2,151	58	636.8	636,800	\$0.35	\$222,880.00	159,200	\$55,720.00
Red Maple	26,899	802	270	89.9	89,900	\$0.25	\$22,475.00	22,475	\$5,618.75
Redbud	910	0	0	0.0	0	\$0.00	\$0.00	0	\$0.00
Sassafras	2,811	57	0	3.8	3,800	\$0.20	\$912.00	950	\$190.00
Scarlet Oak	308	541	0	82.4	82,400	\$0.30	\$24,720.00	20,600	\$6,180.00
Shagbark Hickory	3,537	395	0	73.1	73,100	\$0.27	\$19,737.00	18,275	\$4,934.25
Silver Maple	0	55	0	9.0	9,000	\$0.20	\$1,800.00	2,250	\$450.00
Sugar Maple	33,326	1,534	294	159.8	159,800	\$0.28	\$44,744.00	39,950	\$11,186.00
Sycamore	577	940	176	295.0	295,000	\$0.20	\$59,000.00	73,750	\$14,750.00
Tulip Poplar	2,688	4,709	263	1,416.6	1,416,600	\$0.35	\$495,810.00	354,150	\$123,952.50
White Oak	3,209	5,043	157	1,488.1	1,488,100	\$0.75	\$1,116,075.00	372,025	\$279,018.75
White Pine	0	32	0	10.6	10,600	\$0.20	\$2,120.00	2,650	\$530.00
Total	148,510	26,122	1,989	6,727.2	6,727,200		\$2,938,324.00	1,681,800	\$734,543.00

GriffyLake

Species	No. Trees / acre			Volume / acre		Est. Value / acre	
	Growing Stock	Merchantable	Cull	MBF	BF	Per BF	Total
American Beech	58	1	1	0.65	139	\$0.20	\$27.79
Aspen	1	0	0	0.00	56	\$0.20	\$11.23
Basswood	0	0	0	0.00	6	\$0.25	\$1.40
Bitternut Hickory	6	2	0	0.00	352	\$0.27	\$95.00
Black Cherry	0	0	0	0.08	41	\$0.28	\$11.61
Black Oak	5	8	0	0.27	2,427	\$0.35	\$849.43
Black Walnut	1	1	0	0.02	136	\$1.50	\$204.60
Blackgum	4	0	0	0.00	3	\$0.20	\$0.53
Boxelder	2	0	0	0.00	3	\$0.20	\$0.53
Buckeye	0	0	0	0.00	0	\$0.20	\$0.00
Cedar	0	0	0	0.00	0	\$0.10	\$0.00
Chinkapin Oak	0	0	0	0.00	28	\$0.60	\$16.88
Cottonwood	0	0	0	0.00	77	\$0.20	\$15.31
Elm	12	0	0	0.00	15	\$0.20	\$3.09
Hackberry	0	0	0	0.00	0	\$0.20	\$0.00
Ironwood	4	0	0	0.00	0	\$0.00	\$0.00
Musclewood	2	0	0	0.00	0	\$0.00	\$0.00
No. Red Oak	2	3	0	0.08	849	\$0.35	\$297.17
Red Maple	36	1	0	0.36	120	\$0.25	\$29.97
Redbud	1	0	0	0.00	0	\$0.00	\$0.00
Sassafras	4	0	0	0.00	5	\$0.20	\$1.01
Scarlet Oak	0	1	0	0.00	110	\$0.30	\$32.96
Shagbark Hickory	5	1	0	0.00	97	\$0.27	\$26.32
Silver Maple	0	0	0	0.00	12	\$0.20	\$2.40
Sugar Maple	44	2	0	0.39	213	\$0.28	\$59.66
Sycamore	1	1	0	0.23	393	\$0.20	\$78.67
Tulip Poplar	4	6	0	0.35	1,889	\$0.35	\$661.08
White Oak	4	7	0	0.21	1,984	\$0.75	\$1,488.10
White Pine	0	0	0	0.00	14	\$0.20	\$2.83
Total	198	35	3	3	8,970		\$3,917.56

Lemon North



Lake Lemon North

Species	No. Trees			Volume		Value		Potential Harvest	
	Growing Stock	Merchantable	Cull	MBF	BF	Per BF	Total	Volume	Value
American Beech	7,046	72	90	21.2	21,200	\$0.20	\$4,240.00	5,300	\$1,060.00
Bitternut Hickory	597	320	41	98.9	98,900	\$0.27	\$26,703.00	24,725	\$6,675.75
Black Cherry	100	0	0	0.0	0	\$0.28	\$0.00	0	\$0.00
Black Oak	38	341	0	177.9	177,900	\$0.40	\$71,160.00	44,475	\$17,790.00
Black Walnut	0	10	0	4.6	4,600	\$2.00	\$9,200.00	1,150	\$2,300.00
Blackgum	178	25	0	3.2	3,200	\$0.20	\$640.00	800	\$160.00
Buckeye	1,685	0	0	0.0	0	\$0.20	\$0.00	0	\$0.00
Chestnut Oak	83	10	33	4.5	4,500	\$0.30	\$1,350.00	1,125	\$337.50
Elm	823	21	0	10.4	10,400	\$0.20	\$2,080.00	2,600	\$520.00
Hackberry	100	11	0	4.4	4,400	\$0.20	\$880.00	1,100	\$220.00
No. Red Oak	0	189	10	62.9	62,900	\$0.40	\$25,160.00	15,725	\$6,290.00
Red Maple	1,768	261	0	47.7	47,700	\$0.20	\$9,540.00	11,925	\$2,385.00
Sassafras	424	0	0	0.0	0	\$0.20	\$0.00	0	\$0.00
Sugar Maple	7,617	527	16	98.5	98,500	\$0.28	\$27,580.00	24,625	\$6,895.00
Tulip Poplar	0	25	0	2.8	2,800	\$0.35	\$980.00	700	\$245.00
White Oak	173	1,077	0	376.8	376,800	\$0.85	\$320,280.00	94,200	\$80,070.00
Total	20,632	2,889	190	914	913,800		\$499,793	228,450	\$124,948

Lake Lemon North									
	No. Trees / acre				Volume / acre			Value / acre	
Species	Growing Stock	Merchantable	Cull		MBF	BF		Per BF	Total
American Beech	91	1	1		0.3	275		0.2	54.99
Bitternut Hickory	8	4	1		1.3	1,283		0.27	346.34
Black Cherry	1	0	0		0.0	0		0.28	0.00
Black Oak	0	4	0		2.3	2,307		0.40	922.96
Black Walnut	0	0	0		0.1	60		2.00	119.33
Blackgum	2	0	0		0.0	42		0.20	8.30
Buckeye	22	0	0		0.0	0		0.20	0.00
Chestnut Oak	1	0	0		0.1	58		0.30	17.51
Elm	11	0	0		0.1	135		0.20	26.98
Hackberry	1	0	0		0.1	57		0.20	11.41
No. Red Oak	0	2	0		0.8	816		0.40	326.33
Red Maple	23	3	0		0.6	619		0.20	123.74
Sassafras	5	0	0		0.0	0		0.20	0.00
Sugar Maple	99	7	0		1.3	1,278		0.28	357.72
Tulip Poplar	0	0	0		0.0	36		0.35	12.71
White Oak	2	14	0		4.9	4,887		0.85	4,154.09
Total	268	37	2		11.9	11,852			\$6,482.40

Lemon South



Lake Lemon South

Species	No. Trees			Volume		Value		Potential Harvest	
	Growing Stock	Merchantable	Cull	MBF	BF	Per BF	Total	Volume	Value
American Beech	18,532	306	162	48.6	48,600	0.20	9,720.00	12,150	\$2,430.00
Ash	657	19	0	6.5	6,500	0.25	1,625.00	1,625	\$406.25
Aspen	0	172	0	34.1	34,100	0.20	6,820.00	8,525	\$1,705.00
Basswood	155	12	0	2.5	2,500	0.20	500.00	625	\$125.00
Bitternut Hickory	0	170	0	39.2	39,200	0.27	10,584.00	9,800	\$2,646.00
Black Cherry	126	26	0	12.5	12,500	0.28	3,500.00	3,125	\$875.00
Black Oak	339	275	0	122.8	122,800	0.40	49,120.00	30,700	\$12,280.00
Black Walnut	210	73	9	10.0	10,000	2.00	20,000.00	2,500	\$5,000.00
Blackgum	2,286	58	0	7.4	7,400	0.20	1,480.00	1,850	\$370.00
Buckeye	180	0	0	0.0	0	0.20	0.00	0	\$0.00
Elm	446	28	0	1.3	1,300	0.20	260.00	325	\$65.00
No. Red Oak	102	223	4	102.3	102,300	0.40	40,920.00	25,575	\$10,230.00
Red Maple	383	112	22	12.6	12,600	0.20	2,520.00	3,150	\$630.00
Sassafras	675	28	11	2.1	2,100	0.20	420.00	525	\$105.00
Shagbark Hickory	269	19	0	2.1	2,100	0.27	567.00	525	\$141.75
Sugar Maple	6,137	335	44	54.3	54,300	0.28	15,204.00	13,575	\$3,801.00
Sycamore	66	386	5	127.7	127,700	0.20	25,540.00	31,925	\$6,385.00
Tulip Poplar	794	1,855	79	512.7	512,700	0.35	179,445.00	128,175	\$44,861.25
White Oak	39	152	0	41.0	41,000	0.85	34,850.00	10,250	\$8,712.50
Total	12,864	3,943	174	1,091.1	1,091,100		\$393,355.00	284,925	\$100,768.75

Lake Lemon South								
	No. Trees / acre			Volume / acre		Value / acre		
Species	Growing Stock	Merchantable	Cull	MBF	BF	Per BF	Total	
American Beech	165	3	1	0.43	433	\$0.20	\$86.63	
Ash	6	0	0	0.06	58	\$0.25	\$14.48	
Aspen	0	2	0	0.30	304	\$0.20	\$60.78	
Basswood	1	0	0	0.02	22	\$0.20	\$4.46	
Bitternut Hickory	0	2	0	0.35	349	\$0.27	\$94.33	
Black Cherry	1	0	0	0.11	111	\$0.28	\$31.19	
Black Oak	3	2	0	1.09	1,094	\$0.40	\$437.79	
Black Walnut	2	1	0	0.09	89	\$2.00	\$178.25	
Blackgum	20	1	0	0.07	66	\$0.20	\$13.19	
Buckeye	2	0	0	0.00	0	\$0.20	\$0.00	
Elm	4	0	0	0.01	12	\$0.20	\$2.32	
No. Red Oak	1	2	0	0.91	912	\$0.40	\$364.71	
Red Maple	3	1	0	0.11	112	\$0.20	\$22.46	
Sassafras	6	0	0	0.02	19	\$0.20	\$3.74	
Shagbark Hickory	2	0	0	0.02	19	\$0.27	\$5.05	
Sugar Maple	55	3	0	0.48	484	\$0.28	\$135.51	
Sycamore	1	3	0	1.14	1,138	\$0.20	\$227.63	
Tulip Poplar	7	17	1	4.57	4,570	\$0.35	\$1,599.33	
White Oak	0	1	0	0.37	365	\$0.85	\$310.61	
Total	115	35	2	9.7	9,725		\$3,505.84	

Combined Data

City of Bloomington - Total Timber (Griffy and Lemon)

Species	No. Trees			Volume		Value		Potential Harvest	
	Growing Stock	Merchantable	Cull	MBF	BF	Per BF	Total	Volume	Value
American Beech	69,145	1,135	742	174	174,000	0.20	\$34,800.00	43,500	\$8,700.00
Ash	657	19	0	6.5	6,500	0.25	\$1,625.00	1,625	\$406.25
Aspen	613	502	0	76	76,200	0.20	\$15,240.00	19,050	\$3,810.00
Basswood	380	32	0	7	6,700	0.23	\$1,550.00	1,675	\$387.50
Bitternut Hickory	4,827	1,980	41	402	402,000	0.27	\$108,540.00	100,500	\$27,135.00
Black Cherry	365	189	57	44	43,600	0.28	\$12,208.00	10,900	\$3,052.00
Black Oak	4,446	6,816	206	2,121	2,120,900	0.36	\$757,350.00	530,225	\$189,337.50
Black Walnut	740	600	27	117	116,900	1.56	\$182,650.00	29,225	\$45,662.50
Blackgum	5,805	83	0	13	12,600	0.20	\$2,520.00	3,150	\$630.00
Boxelder	1,644	29	0	2	2,000	0.00	\$400.00	500	\$0.00
Buckeye	2,169	0	0	0	0	0.00	\$0.00	0	\$0.00
Cedar	364	0	0	0	0	0.00	\$0.00	0	\$0.00
Chinkapin Oak	43	161	0	21	21,100	0.60	\$12,660.00	5,275	\$3,165.00
Cottonwood	0	112	0	57	57,400	0.20	\$11,480.00	14,350	\$2,870.00
Elm	10,221	108	0	23	23,300	0.20	\$4,660.00	5,825	\$1,165.00
Hackberry	146	0	0	0	0	0.00	\$0.00	0	\$0.00
Ironwood	2,860	0	0	0	0	0.00	\$0.00	0	\$0.00
Musclewood	1,687	0	0	0	0	0.00	\$0.00	0	\$0.00
No. Red Oak	1,633	2,563	72	802	802,000	0.36	\$288,960.00	200,500	\$72,240.00
Red Maple	29,050	1,175	292	150	150,200	0.23	\$34,535.00	37,550	\$8,633.75
Redbud	910	0	0	0	0	0.00	\$0.00	0	\$0.00
Sassafras	3,910	85	11	6	5,900	0.20	\$1,180.00	1,475	\$295.00
Scarlet Oak	308	541	0	82	82,400	0.30	\$24,720.00	20,600	\$6,180.00
Shagbark Hickory	3,806	414	0	75	75,200	0.27	\$20,304.00	18,800	\$5,076.00
Silver Maple	0	55	0	9	9,000	0.20	\$1,800.00	2,250	\$450.00
Sugar Maple	47,080	2,396	354	313	312,600	0.28	\$87,528.00	78,150	\$21,882.00
Sycamore	643	1,326	181	423	422,700	0.20	\$84,540.00	105,675	\$21,135.00
Tulip Poplar	3,482	6,589	263	1,417	1,932,100	0.35	\$676,235.00	483,025	\$169,058.75
White Oak	3,421	6,272	157	1,906	1,905,900	0.77	\$1,471,205.00	476,475	\$367,801.25
White Pine	0	32	0	11	10,600	0.20	\$2,120.00	2,650	\$530.00
Total	200,355	33,214	2,403	8,256	8,771,800		\$3,838,810.00	2,192,950	\$959,602.50

City of Bloomington - Total Timber (Griffy and Lemon)

	No. Trees / acre			Volume / acre		Value / acre	
Species	Growing Stock	Merchantable	Cull	MBF	BF	Per BF	Total
American Beech	74	1	1	0	185	\$0.20	\$37.05
Ash	1	0	0	0	7	\$0.25	\$1.73
Aspen	1	1	0	0	81	\$0.20	\$16.22
Basswood	0	0	0	0	7	\$0.23	\$1.65
Bitternut Hickory	5	2	0	0	428	\$0.27	\$115.55
Black Cherry	0	0	0	0	46	\$0.28	\$13.00
Black Oak	5	7	0	2	2,258	\$0.36	\$806.29
Black Walnut	1	1	0	0	124	\$1.56	\$194.45
Blackgum	6	0	0	0	13	\$0.20	\$2.68
Boxelder	2	0	0	0	2	\$0.00	\$0.43
Buckeye	2	0	0	0	0	\$0.00	\$0.00
Cedar	0	0	0	0	0	\$0.00	\$0.00
Chinkapin Oak	0	0	0	0	22	\$0.60	\$13.48
Cottonwood	0	0	0	0	61	\$0.20	\$12.22
Elm	11	0	0	0	25	\$0.20	\$4.96
Hackberry	0	0	0	0	0	\$0.00	\$0.00
Ironwood	3	0	0	0	0	\$0.00	\$0.00
Musclewood	2	0	0	0	0	\$0.00	\$0.00
No. Red Oak	2	3	0	1	854	\$0.36	\$307.63
Red Maple	31	1	0	0	160	\$0.23	\$36.77
Redbud	1	0	0	0	0	\$0.00	\$0.00
Sassafras	4	0	0	0	6	\$0.20	\$1.26
Scarlet Oak	0	1	0	0	88	\$0.30	\$26.32
Shagbark Hickory	4	0	0	0	80	\$0.27	\$21.62
Silver Maple	0	0	0	0	10	\$0.20	\$1.92
Sugar Maple	50	3	0	0	333	\$0.28	\$93.18
Sycamore	1	1	0	0	450	\$0.20	\$90.00
Tulip Poplar	4	7	0	2	2,057	\$0.35	\$719.94
White Oak	4	7	0	2	2,029	\$0.77	\$1,566.28
White Pine	0	0	0	0	11	\$0.20	\$2.26
Total	213	35	3	9	9,339		\$4,086.88

Disclaimer

The volume and value of timber described in this report are an estimation. The figures are for planning purposes only and are in no way a guarantee of volume or value. Timber values vary based on many factors. This report is produced for the City of Bloomington and is non-transferable.