

September 2008

LARRY AND MARILYN (McMurray) STEPHENSON TIMBER
APPRAISAL
TRACT 2 ~ 20 ± ACRES WOODLAND

The following report will describe the timber on the approximately 20 ± acres of woodland located on Tract # 2 (Total tract is approximately 27 ± acres) and appraise the 2008 merchantable timber value. The acreage in the woods was estimated using aerial photographs.

Classified Forest Program: This woodland is not enrolled in Indiana's Classified Forest Program. This is an excellent program that provides technical assistance and property tax abatement (taxes reduced to pennies an acre) to forest landowners. I recommend enrolling this woods into this program.

SITE DESCRIPTION

Location: This woodland is located in section 29, Clear Lake Township, Steuben County, Indiana. T-38-N R-15-E

Soils: According to the Steuben County Soil Survey, the main soil types in this woodland are Rawson loam (approximately 10 to 12 acres), Kosciusko sandy loam (approximately 3 acres), and Morley silt loam (approximately 3 acres) with a small amount of Houghton muck.

Soil Description: The Rawson soil is located throughout most of the woods with the exception of the higher ground (Kosciusko soil) to the south, the steeper slopes (Morley soil) to the north and west, and the low wet ground (Houghton soil) in the northwest corner. The Rawson, Kosciusko, and Morley soils are all deep, moderately well drained to well drained soils on gently to moderately sloping ground. These are productive forest soils that are capable of growing most hardwood species. The Houghton soil is a deep, poorly to very poorly drained soil that is severely limited due to excessive wetness.

Soil Productivity: The site index for white and red oak ranges from 76 to 80 for the three main upland soils. Site index is a measure of the height of the dominant stand of trees at 50 years. In general, the greater the site index, the taller the trees, hence the more productive the site.

WOODLAND DESCRIPTION

Species: This woodland is an example of a Maple – Beech Climax Forest. The main species in this woods is sugar maple (hard maple) composing 74 percent of the trees in the woods with 78 % of the volume. Basswood (6 % of the trees, 5 % of the volume) and black walnut (5 % of the trees, 3 % of the volume) are also significant species. Other merchantable species present (in order of occurrence) include American beech, red elm, black cherry, bitternut hickory, cottonwood, white ash, American elm, red oak, tulip, and soft maple. Each of these specie represent less than 2 percent of the merchantable trees and less than 3 percent of the volume. The woodland is generally well stocked. Abundant sapling sized sugar maple is present in most of the understory.

Tree Size: Merchantable trees range in size from 14 inches, DBH (diameter at breast height) to 34 inches, DBH with the average diameter of 21 inches, DBH for the entire stand. The average diameter of the trees marked for harvest is 24 inches, DBH with the residual stand having a average diameter of 19 inches, DBH. Most of the black walnut in the woods measure under 20 inches, DBH.

Stocking Level: The stocking level is fairly consistent throughout the woods. The average stocking level for the entire woodland was 81 square feet of basal area per acre, however no diameter was recorded on the 79 trees that were judged to no longer contain merchantable timber. Including these trees the stocking level were be just over 90 square feet of basal area per acre. A basal area of approximately 80 square feet is considered to be well-stocked.

Quality and Condition: In general this woodland is made up of large to very large, generally good to very good quality trees. The trees are generally in good condition although several of the sugar maple, basswood, and beech are hollow at the base. A total of 79 trees (56 sugar maple, 11 beech, and 5 basswood, 7 misc.) were judged to no longer contain merchantable timber due to defects, no volume was estimated for these trees. These trees are listed in the inventory as “X” trees at the left side of the columns and are in addition to the # of trees listed in the center column.

APPRAISAL PROCESS

Timber Inventory: A 100 percent inventory was conducted in this woodland, with the inventory divided into trees recommended for harvest ((Tract 2A – marked timber – blue paint) and the residual timber – not recommended for harvest). Efforts were made to adjust the volume of the timber to allow for defects in the trees. These adjustments are based on observable defects and holes, sounding the trunk of the trees, and evaluating the trees for excessive taper often due to hidden defects. Buyers are responsible for confirming the volume estimates.

This inventory yields board foot volumes and number of trees by species and DBH class.

The results of the inventory can be found in the tables found at the end of the report. The first table shows estimated timber volumes and number of trees by species for the entire

tract. The second table shows the estimated volume and number of merchantable trees marked for harvest by species and diameter class, respectively. The third table shows the estimated volume and number of merchantable trees that would make up the residual stand if the harvest is completed.

Valuation Process: To determine the 2008 fair market stumpage value for the merchantable timber in this woodland, I used the results from 9 comparable timber sales that I have conducted for private landowners in this marketing area. Tree species, quality, and size, in addition to woodland size, location, and logging accessibility where all factors considered when selecting comparable sales and a value per thousand board feet.

The stumpage value of many of the comparables is lower than the value attributed to this property due to the high component of white ash included in the sales and a lower percentage of sugar maple, a higher valued species. The value of the Tucker sale was considerably higher due to a high component of black walnut including several veneer trees.

The value of sugar maple is very difficult to determine until the trees are harvested due to variations in the color and size of the heartwood. These variations can have a significant impact on the value and the amount of the wood that will yield high value veneer. For these reasons I have provided a range in the values below.

The Value for the residual stand is slightly higher due to the amount of black walnut and the estimated volume of 420 board feet of walnut veneer.

Appraisal Summary: Based on my knowledge of the recent timber sales and the timber inventory, I estimate that the 2008 stumpage value of the timber in the estimated 20 ± acre woodland located on Tract # 2 and 2A to be as follows:

RECOMMENDED HARVEST – Tract 2A

2008 Estimated Sawtimber Board Foot Volume, DOYLE board feet	124,487
2008 Estimated Sawtimber Value per Thousand Board Feet \$700/MBF	\$ 525 to
2008 Estimated Value of the Recommended Harvest \$ 85,000	\$ 65,000 to

RESIDUAL TIMBER

2008 Estimated Sawtimber Board Foot Volume, DOYLE board feet	73,536
2008 Estimated Sawtimber Value per Thousand Board Feet \$750/MBF	\$ 600 to
2008 Estimated Value of the Residual Timber \$ 55,000	\$ 45,000 to

TOTAL ESTIMATED CURRENT STUMPAGE VALUE	\$ 110,000 to
\$ 140,000	

Timber Markets: At this time timber markets are down (likely temporarily) due to the

general economy and weak housing market. Some species such as red oak have been affected more than others. The market for white ash is weak and anticipated to stay that way due to an increase in supply due to salvage sales caused by the emerald ash borer. The markets for the larger white oaks and black walnut are good in part due to a strong export market and the weak dollar overseas. The timber markets for sugar and soft maple and black cherry were generally good last year and should hold their own this year, other than seasonal fluctuation. Historically timber prices have increased at 1 to 2 percent over the rate of inflation and follow the general economy although with less significant fluctuations. The historical markets for black walnut tend to be strong due to a limited supply. It is anticipated that timber markets should improve with the general economy.

Additional information regarding timber prices and trend in Indiana can be found in Purdue FNR – 177 W – publication which is available on the internet through the Purdue extension website.

Timber Harvest: A recommended timber harvest has been marked in this woodland. The trees are marked with blue paint on two sides of the tree or with an “X” representing a cull tree. In addition, the trunks of the potential harvest trees were marked with a spot at ground level. In general any managed harvest conducted to maximize the long-term economic and biological productivity of the woods should concentrate on removing damaged and defective trees, poorly formed trees, high risk trees (such as elm and ash), slow growing and lower value trees that have a limited potential to improve, and other less desirable trees that are competing with higher valued future crop trees. In general, when selecting trees to be harvested it should be based on their potential or lack of potential (percent return on investment) instead of current value. For example a walnut tree may have a current value of \$500, but it may be increasing in value at 10 to 20 % depending on the tree quality and growth rate. There are a few walnut trees left in the woods, including a couple individual trees worth upwards of \$ 500.00, that should not be harvested at this time.

The recommended harvest, a combination of an improvement and a regeneration harvest, includes 295 trees marked with a spot plus an additional 40 trees marked with an “X”. The estimated volume for these trees is 124,487 board feet, Doyle. The income derived from the harvest would likely be between \$65,000 and 85,000, depending on how the sugar maple cuts. Another harvest could be held in approximately 10 years. Future harvests should be held at intervals of approximately 10 to 15 years, depending on the landowner’s objectives and timber markets, however those harvests will likely be smaller until the woodland matures again. The harvests should all be sold on a competitive basis.

Additional information regarding the how to sell timber can be found in Purdue FNR –138 publication – “Tips On How To Get The Most From Your Timber Harvest” by William Hoover and Jack Siefert.

Income Tax: Because timber is considered as real estate, it may be possible to avoid much of the income tax on a timber sale by depleting the value of the property. A forester or tax accountant familiar with timber taxation can advise you on how this is accomplished. Further information may be obtained at

www.timbertax.org

If you have any questions regarding the information or recommendations in this report don't hesitate to contact us at any time. The best time to reach me is during the evening at 260-627-0352 or on my cell phone at 260-704-1655

Respectfully submitted,

Tom Crowe
Crowe Forest Management, LLC

ROBERT AND MARILYN STEPHENSON (McMURRAY) WOODLAND

WOODLAND LOCATION: Section 29 of Clear Lake Township of Steuben County, Indiana.

MARKING: These woods were marked with one spot of **BLUE PAINT** on two sides of each tree plus a spot at the base or with an "X" representing untallied trees.

SUMMARY OF TIMBER MARKED: by Tom Crowe 260-704-1655 (Cell Phone)

"X"	SPECIES	# TREES	ESTIMATED BD. FT. VOLUME, DOYLE
24	SUGAR MAPLE	222	97,324
4	BASSWOOD	22	8,547
5	BEECH	12	5,171
0	COTTONWOOD	7	3,663
0	BITTERNUT HICKORY	7	2,541
0	BLACK WALNUT	5	2,021
3	RED ELM	10	1,802
0	TULIP	1	1,087
0	SOFT MAPLE	1	685
3	AMERICAN ELM	3	583
0	RED OAK	1	505
3	WHITE ASH	3	421
0	BLACK CHERRY	1	137
40	TOTALS	295 TREES	124,487 BD FT

A separate inventory of the unmarked timber is available.

Location of the property lines were established from the best available information. No land surveying was contemplated or conducted. Therefore no responsibility is assumed for the correct location of the parcel.

Efforts were made to adjust the volume of timber to allow for defects in the trees. These adjustments are based on observable holes, sounding the trunk of the trees, and excessive taper in the tree. Buyers are responsible for confirming the volume estimates.

ROBERT AND MARILYN STEPHENSON (McMURRAY) WOODLAND

WOODLAND LOCATION: Section 29 of Clear Lake Township of Steuben County, Indiana.

MARKING: These woods were marked with one small spot of **ORANGE PAINT** on one side of the tree.

SUMMARY OF TIMBER MARKED: by Tom Crowe 260-704-1655 (Cell Phone)

"X"	SPECIES	# TREES	ESTIMATED BD. FT. VOLUME, DOYLE
32	SUGAR MAPLE	257	56,440
0	BLACK WALNUT	28	3,954 + 420 veneer
0	COTTONWOOD	6	2,507
1	BASSWOOD	14	2,047
6	BEECH	4	1,742
0	BITTERNUT HICKORY	7	1,652
0	TULIP	2	1,398
0	BLACK CHERRY	13	1,140
0	WHITE ASH	7	830
0	RED ELM	5	552
0	RED OAK	3	500
0	AMERICAN ELM	3	354
39	TOTALS	349 TREES	73,536 BD FT

A separate inventory of the marked timber is available.

Location of the property lines were established from the best available information. No land surveying was contemplated or conducted. Therefore no responsibility is assumed for the correct location of the parcel.

Efforts were made to adjust the volume of timber to allow for defects in the trees. These adjustments are based on observable holes, sounding the trunk of the trees, and excessive taper in the tree. Buyers are responsible for confirming the volume estimates.

Statement of Assumptions and Limited Conditions

No responsibility has been assumed for legal matters, nor title opinion rendered on this property or its timber in the appraisal. Liens and encumbrances have been disregarded in the appraisal. The sawtimber has been appraised as though free of indebtedness.

Location of property lines and acreage were established from the best available information. No land surveying was contemplated or conducted during the appraisal project. Therefore, no responsibility is assumed for correct location of parcels or land area.

It is assumed that legal rights-of-way are in existence or can be obtained to all parcels included in this appraisal.

Although all information contained in this report is believed to be correct, no guarantee or assumption of liability regarding the information is intended.

Delivery of this report concludes this specific work assignment from the client requesting the appraisal.

Possession of this report does not include the right of publication. Its use is not intended for any other purpose than those of the client requesting the appraisal without written consent of the appraiser, and in any event, only in its entirety. If values in this report are used in making appraisals by a combination of values produced by other persons, then this appraisal becomes invalid.

Appraiser's Certification

To the best of my knowledge and belief, all statements and information in this report are true and correct. No important facts have been intentionally withheld.

I have personally inspected the timber on the sales used as comparable for the appraisal analysis and verified the sale price.

My fee for providing this appraisal is not contingent on the price reported.

Tom Crowe
Crowe Forest Management, LLC.