

# Woodland Stewardship Management Plan



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JUN 13 2013

JILL A. THOMPSON  
ATHENS COUNTY AUDITOR

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## Owner's Information:

Case Number: \_\_\_\_\_

Owner Laura McManus-Berry

Signed: Laura McManus-Berry

Date: June 13, 2013

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## Preparer's Information:

Prepared by: Dean A. Berry

Signature: Dean A. Berry

Woodland Management Services  
c/o Dean A. Berry, Consulting Forester

13 Sunset Lane

The Plains, Ohio 45780

TSP # 10-6547

Date: June 10<sup>th</sup>, 2013

740-797-4647 home

740-541-4647 mobile

wms@columbus.rr.com

This 10 year plan is valid for the period beginning June 1, 2013  
and ending June 1, 2023.

Plan Status: Revised

Owner Laura McManus-Berry  
 Address 18216 S. Canaan Road  
Athens, OH 45701  
 Phone 740-662-2726 Case Number \_\_\_\_\_  
 Cell \_\_\_\_\_ Email Address stickyp@frontier.com  
 County Athens Township: Sec 31 Rome Twp .  
Sec 36 Carthage Twp  
 Parcel(s): Tax Parcel No K010010067600, K010010067400, K010010067500,  
K010010066900, F010010046800  
 Location: North side of S. Canaan Road

Woodland Stewardship Acreage: 177 Non-woodland Stewardship Acreage\*: 17.2  
 Total Property Acres 194.2 \* Non-woodland acres for which stewardship recommendations are made.

This plan was written to qualify the landowner's woodland for the programs checked below:

- Ohio Forest Tax Law  American Tree Farm Program  
 Environmental Quality Incentives Program (EQIP)  CAUV

Property coordinates (report in WGS 84, decimal degrees.)

Latitude: N 39.27763 Longitude W 81.94933

### ***Landowner Management Objectives***

1. Manage the property for all attributes and opportunities that exist in a forest ecosystem of interest to the owner including recreation, wildlife management, soil and water management, forest protection, timber products management, and other compatible conservation uses.
2. Maintain and improve the productivity of the Sugar Bush.

### ***General Woodland Description***

Athens County is located in the unglaciated hill country of southeastern Ohio. Slope and erosion hazard is the major land use limitations. Seasonal wetness, droughtiness, flood hazard, and the moderately slow to very slow permeability of some soils also limit land use.

Athens County is in the central hardwood forest region. Major forest types include Appalachian hardwoods, bottomland hardwoods, oak-hickory, successional, Virginia pine, and white pine plantations. Most of the woodland in Athens County is in areas of steep and very steep terrain. This terrain is well suited to trees. Timber and maple syrup are important forest products in Athens County.

Situated in the rolling hills of southeastern Ohio, Sticky Pete's Pure Maple syrup began in 1996 by John Berry and Laura McManus. Presently Laura works a 1500 tap sugarbush. The label was a tribute to their faithful dog, Petey, who was with them through every step of the process, from gathering sap in the woods, to boiling in the sugarhouse, to bottling the delicious golden amber on its way to the market. Sticky Pete's is owner operated. Laura is a member of the Ohio Maple Syrup Association She is dedicated to a quality assured product.

## Data For Parcel F010010046800

## Base Data

Parcel: F010010046800  
 Owner: MCMANUS LAURA MARY  
 Address: 0 S CANAAN RD



[+] Map this property.

## Mailing Address

Mailing Name: MCMANUS LAURA MARY  
 Address: 18216 S CANAAN RD  
 City State Zip: ATHENS OH 45701

## Geographic

City: UNINCORPORATED  
 Township: CARTHAGE TOWNSHIP  
 School District: FEDERAL HOCKING SCHOOL DISTRICT

## Legal

Neighborhood: 00019000  
 Legal Description: 12-05-00 SEC 36 3.000A  
 Map Number: 0-0-0-0

Legal Acres: 3  
 Land Use: (100) A - AGRICULTURAL VACANT LAND  
 Property Class: AGRICULTURAL  
 Range Township Section: 0-0-0

## Valuation

	Appraised	Assessed (35%)
Land Value:	\$4,200.00	\$1,470.00
Building Value:	\$0.00	\$0.00
Total Value:	\$4,200.00	\$1,470.00
CAUV Value:		\$0.00
Taxable Value:	\$1,470.00	

## Tax Credits

2.5% Homesite Rollback: NO  
 Homestead Reduction: NO

## Notes

Notes:

GIS parcel shapefile last updated 2/8/2013 4:24:52 PM.  
 CAMA database last updated 2/9/2013 5:33:53 PM.

**Base Data**

**Parcel:** K010010067400  
**Owner:** MCMANUS LAURA MARY  
**Address:** 0 S CANNAN RD



[+] Map this property.

**Mailing Address**

**Mailing Name:** MCMANUS LAURA MARY  
**Address:** 18216 S CANAAN RD  
**City State Zip:** ATHENS OH 45701

**Geographic**

**City:** UNINCORPORATED  
**Township:** ROME TOWNSHIP  
**School District:** FEDERAL HOCKING SCHOOL DISTRICT

**Legal**

**Neighborhood:** 00018000  
**Legal Description:** 13-06-00 SEC 31 6.000A  
 6.00AC FOREST LAND  
 CERT.#13208(REV)  
**Map Number:** 0-0-0-0

**Legal Acres:** 6  
**Land Use:** (100) A - AGRICULTURAL  
 VACANT LAND  
**Property Class:** AGRICULTURAL  
**Range Township Section:** 0-0-0

**Valuation**

	Appraised	Assessed (35%)
<b>Land Value:</b>	\$2,700.00	\$950.00
<b>Building Value:</b>	\$0.00	\$0.00
<b>Total Value:</b>	\$2,700.00	\$950.00
<b>CAUV Value:</b>		\$0.00
<b>Taxable Value:</b>		\$950.00

**Tax Credits**

**2.5% Homesite Rollback:** NO  
**Homestead Reduction:** NO

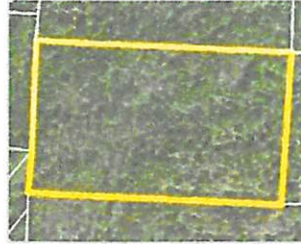
**Notes**

**Notes:**

*GIS parcel shapefile last updated 2/8/2013 4:24:52 PM.  
 CAMA database last updated 2/9/2013 5:33:53 PM.*

**Base Data**

**Parcel:** K010010067500  
**Owner:** MCMANUS LAURA MARY  
**Address:** 0 CANAAN RD



[+] Map this property.

**Mailing Address**

**Mailing Name:** MCMANUS LAURA  
MARY  
**Address:** 18216 S CANAAN RD  
**City State Zip:** ATHENS OH 45701

**Geographic**

**City:** UNINCORPORATED  
**Township:** ROME TOWNSHIP  
**School District:** FEDERAL HOCKING  
SCHOOL DISTRICT

**Legal**

**Neighborhood:** 00018000  
**Legal Description:** 13-06-00 SEC 31 24.000A  
24.00AC FOREST LAND  
CERT.#13208(REV)  
**Map Number:** 0-0-0-0

**Legal Acres:** 24  
**Land Use:** (100) A - AGRICULTURAL  
VACANT LAND  
**Property Class:** AGRICULTURAL  
**Range Township Section:** 0-0-0

**Valuation**

	<b>Appraised</b>	<b>Assessed (35%)</b>
<b>Land Value:</b>	\$10,800.00	\$3,780.00
<b>Building Value:</b>	\$0.00	\$0.00
<b>Total Value:</b>	\$10,800.00	\$3,780.00
<b>CAUV Value:</b>		\$0.00
<b>Taxable Value:</b>		\$3,780.00

**Tax Credits**

**2.5% Homesite Rollback:** NO  
**Homestead Reduction:** NO

**Notes**

**Notes:**

*GIS parcel shapefile last updated 2/8/2013 4:24:52 PM.*

*CAMA database last updated 2/9/2013 5:33:53 PM.*

**Base Data**

**Parcel:** K010010066900  
**Owner:** MCMANUS LAURA MARY  
**Address:** 18216 S CANAAN RD



[+] Map this property.

**Mailing Address**

**Mailing Name:** MCMANUS LAURA MARY  
**Address:** 18216 S CANAAN RD  
**City State Zip:** ATHENS OH 45701

**Geographic**

**City:** UNINCORPORATED  
**Township:** ROME TOWNSHIP  
**School District:** FEDERAL HOCKING SCHOOL DISTRICT

**Legal**

**Neighborhood:** 00018000  
**Legal Description:** 13-06-00 SEC 31 90.00A  
 78.80AC FOREST LAND  
 CERT.#13208(REV)  
**Map Number:** 0-0-0-0

**Legal Acres:** 90  
**Land Use:** (101) A - CASH GRAIN OR  
 GENERAL FARM  
**Property Class:** AGRICULTURAL  
**Range Township Section:** 0-0-0

**Valuation**

	<b>Appraised</b>	<b>Assessed (35%)</b>
<b>Land Value:</b>	\$61,640.00	\$21,570.00
<b>Building Value:</b>	\$85,690.00	\$29,990.00
<b>Total Value:</b>	\$147,330.00	\$51,560.00
<b>CAUV Value:</b>		\$0.00
<b>Taxable Value:</b>		\$51,560.00

**Tax Credits**

**2.5% Homesite Rollback:** YES  
**Homestead Reduction:** NO

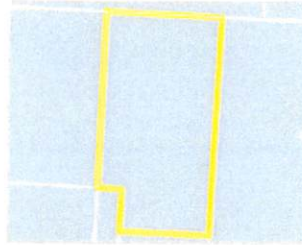
**Notes**

**Notes:**

*GIS parcel shapefile last updated 2/8/2013 4:24:52 PM.  
 CAMA database last updated 2/9/2013 5:33:53 PM.*

**Base Data**

**Parcel:** K010010067600  
**Owner:** MCMANUS LAURA MARY  
**Address:** 0 S CANAAN RD



[+] Map this property.

**Mailing Address**

**Mailing Name:** MCMANUS LAURA  
MARY  
**Address:** 18216 S CANAAN RD  
**City State Zip:** ATHENS OH 45701

**Geographic**

**City:** UNINCORPORATED  
**Township:** ROME TOWNSHIP  
**School District:** FEDERAL HOCKING  
SCHOOL DISTRICT

**Legal**

**Neighborhood:** 00018000  
**Legal Description:** 13-06-00 SEC 31 71.200A  
71.20AC FOREST LAND  
CERT.#13208(REV)  
**Map Number:** 0-0-0-0

**Legal Acres:** 71.2  
**Land Use:** (100) A - AGRICULTURAL  
VACANT LAND  
**Property Class:** AGRICULTURAL  
**Range Township Section:** 0-0-0

**Valuation**

	Appraised	Assessed (35%)
<b>Land Value:</b>	\$32,040.00	\$11,210.00
<b>Building Value:</b>	\$0.00	\$0.00
<b>Total Value:</b>	\$32,040.00	\$11,210.00
<b>CAUV Value:</b>		\$0.00
<b>Taxable Value:</b>		\$11,210.00

**Tax Credits**

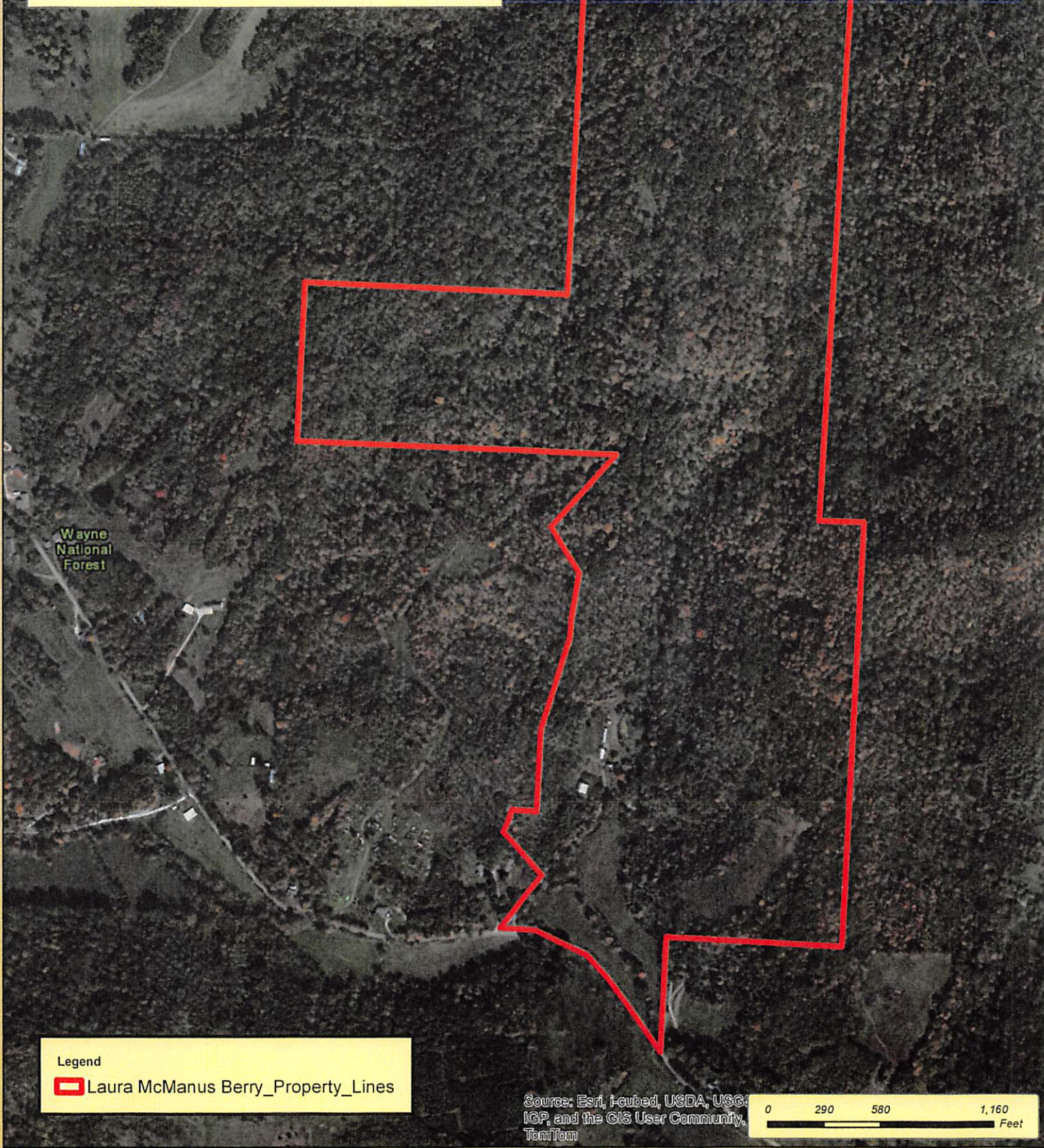
**2.5% Homesite Rollback:** NO  
**Homestead Reduction:** NO

**Notes**

**Notes:**


*GIS parcel shapefile last updated 2/8/2013 4:24:52 PM.  
 CAMA database last updated 2/9/2013 5:33:53 PM.*

Laura McManus Berry Tract  
Sec. 31 Rome Twp  
Sec 36 Carthage Twp  
Athens Co., OH

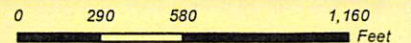


Wayne  
National  
Forest

Legend

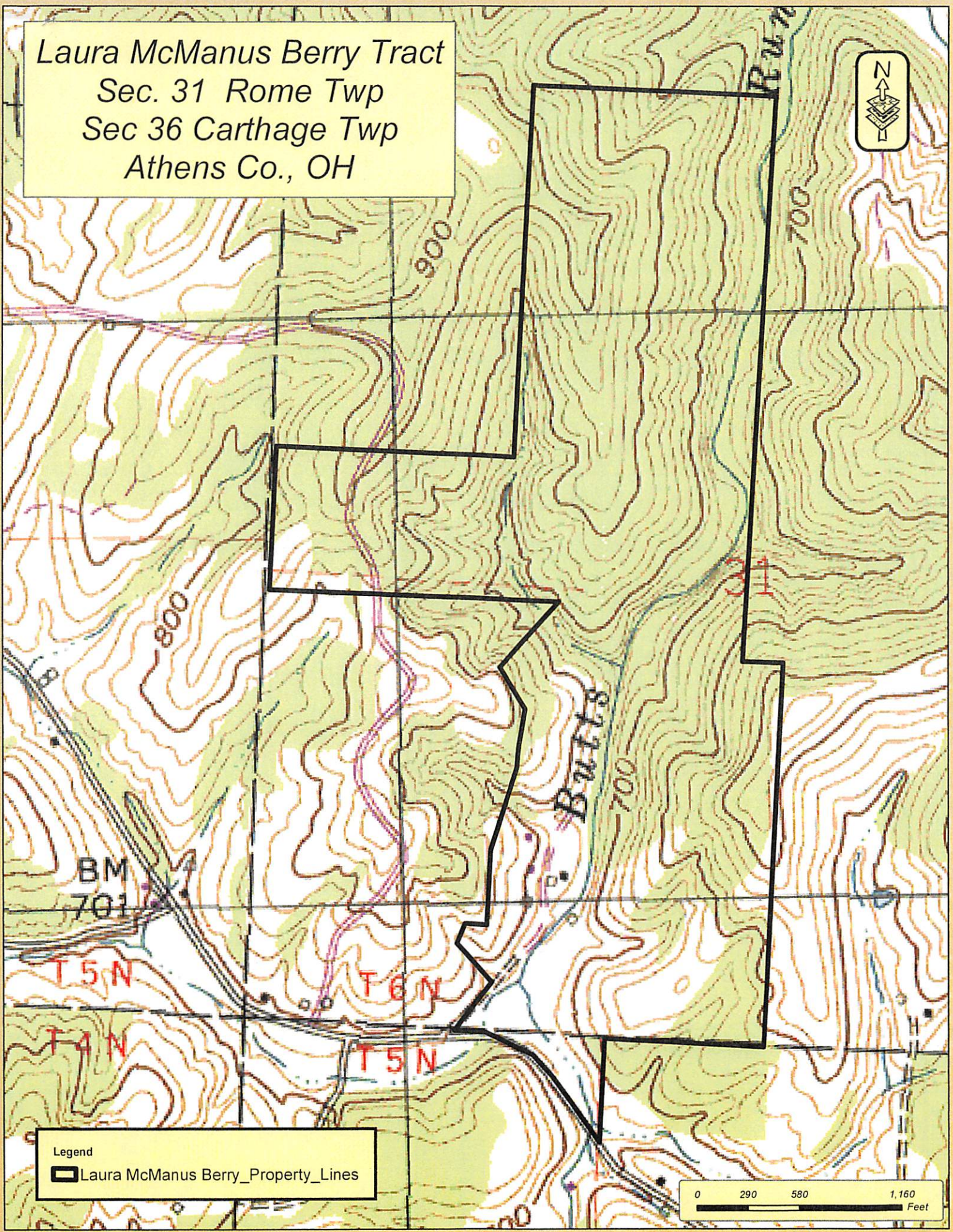
 Laura McManus Berry\_Property\_Lines

Source: Esri, i-cubed, USDA, USGS,  
IGP, and the GIS User Community,  
TomTom





Laura McManus Berry Tract  
Sec. 31 Rome Twp  
Sec 36 Carthage Twp  
Athens Co., OH



Legend  
■ Laura McManus Berry\_Property\_Lines

0 290 580 1,160  
Feet

Laura McManus Berry Tract  
 Sec. 31 Rome Twp  
 Sec 36 Carthage Twp  
 Athens Co., OH



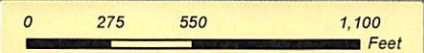
Legend

Laura\_Berry\_Property\_Lines

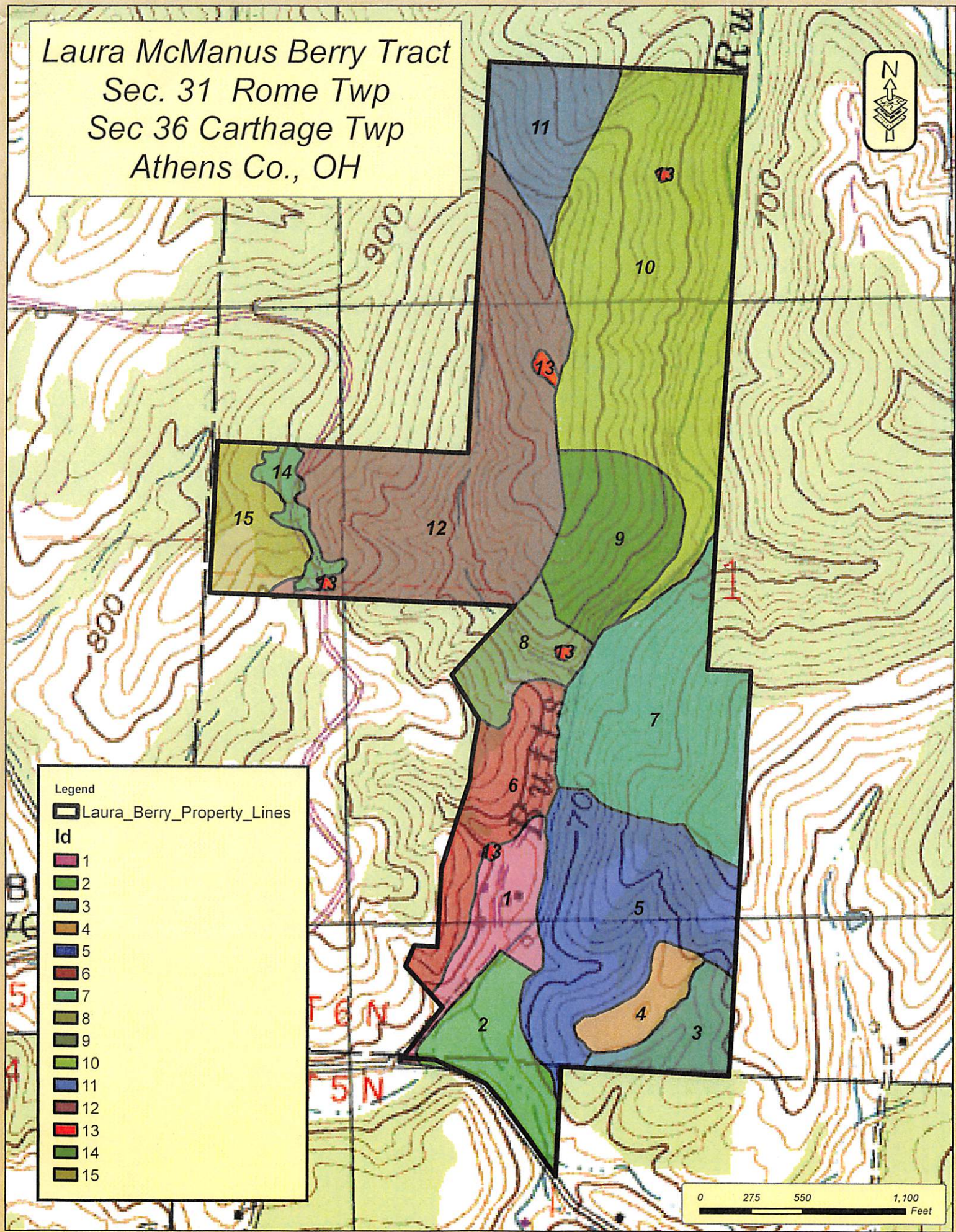
**Id**

- 1
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- 15

Source: Esri, i-cubed, USDA, USGS, IGP, and the GIS User Community

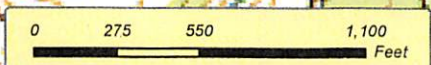


Laura McManus Berry Tract  
 Sec. 31 Rome Twp  
 Sec 36 Carthage Twp  
 Athens Co., OH



Legend

- Laura\_Berry\_Property\_Lines
- Id**
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- 14
- 15



## *Woodland Stand Description and Management Recommendations*

**Stand #1 – 6.0** Acres

**Dominant Species:**

**Forest Type or Dominant Vegetation:** Non-Forested area – Residential Area –Sugar Shack

**Stand Diameter or Size Class:**

**Stocking Level:** N/A

**Stand History:** Other

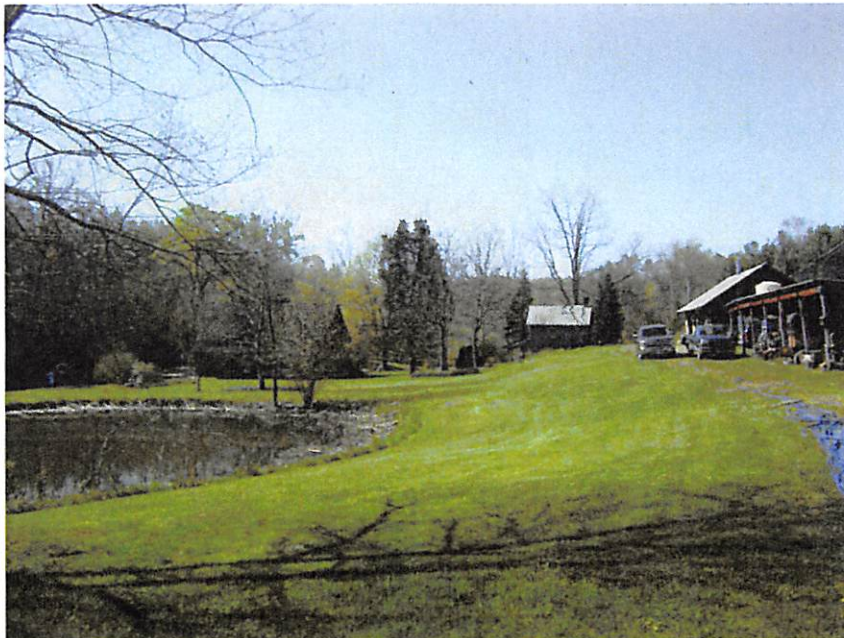
**Topography:** Nearly level

**Invasive plants or insects impacting this stand:** None noted at the time of this inspection

**Present conditions for you to consider** Non-Forested area –Laura’s house, sugar shack, outbuildings, garden area, pond, garden, yard and driveway.

Management Recommendations:	Management Tasks/Year	
	Required?	Year
Inspect for invasive species and eradicate any found	<input type="checkbox"/>	2013 - 2023
	<input type="checkbox"/>	
	<input type="checkbox"/>	

**Comments.** Log Home was built from wood harvested from the farm  
The Sugar Shack is the center of operations for this farm.



## Woodland Stand Description and Management Recommendations

Stand # 2 – 8.9 Acres

Dominant Species: Grasses

Forest Type or Dominant Vegetation: Non-Forest Area –Hay Fields

Stand Diameter or Size Class:

Stocking Level: and/or Basal Area : (ft<sup>2</sup>/acre)

Stand History: Other Agricultural use

Topography: Gently sloping

Invasive plants or insects impacting this stand: Autumn Olive along edges of fields

Present conditions for you to consider: Non-Forest Area – hay fields separated by a perennial stream

Management Recommendations:	Management Tasks/Year	
	Required?	Year
Mark Property Lines with Paint	<input checked="" type="checkbox"/>	2013-2016
Inspect for invasive species	<input checked="" type="checkbox"/>	2014 - 2020
Eradicate identified infestations (1 ac)		

If a timber harvest is recommended, silvicultural method to be used:

**Comments:** If these areas are ever taken out of agricultural use this area should be planted to trees to ensure a well stocked stand of desirable species. Any trees planted will need protection from seasonal deer browses With this additional work – this area should be able to support conifer trees –White Pine or Pit-Loblolly Pine, or even Black Walnut in the lower field.



## ***Woodland Stand Description and Management Recommendations***

**Stand # 3 - 5.5 Acres**

**Dominant Species:** Hard Maple, White Oak, Black Oak, Beech, Hickory

**Forest Type or Dominant Vegetation:** Upland Central Hardwoods

**Stand Diameter or Size Class:** Medium/Large sawtimber

**Stocking Level:** Fully stocked

**Stand History:** No Prior Management

**Topography:** Draws/Ravines

**Invasive plants or insects impacting this stand:** None noted at this Inspection

**Present conditions for you to consider:** well stocked stand that could be selectively harvested at any time. This area is located in SE end of the tract. A few scattered grapevines in this area – not a real issue.

<b>Management Recommendations:</b>	<b>Management Tasks/Year</b>	
	<b>Required?</b>	<b>Year</b>
Mark property lines with paint	<input checked="" type="checkbox"/>	2013-2016
Cut the scattered grapevines	<input type="checkbox"/>	2013-2023
Possible selection harvest	<input type="checkbox"/>	2013-2023

**If a timber harvest is recommended, silvicultural method to be used:**

Single Tree and Small Group Selection Remove mature Oaks, Beech & Hickories- Leave all Maples

**Comments.** Landowner needs to locate and mark the property lines in this area. The few grapevines in this area should be cut before any harvesting is done. Understory is fairly open. This area may be developed as an addition to the maple syrup operation in the future.



## ***Woodland Stand Description and Management Recommendations***

**Stand # 4 – 4.0 Acres**

**Dominant Species:** Grasses & briars

**Forest Type or Dominant Vegetation:** Non-Forest Area – Ag Field

**Stand Diameter or Size Class:**

**Stocking Level: and/or Basal Area :** (ft<sup>2</sup>/acre)

**Stand History:** Other Agricultural use

**Topography:** Nearly level

**Invasive plants or insects impacting this stand:** Autumn Olive along edges of fields

**Present conditions for you to consider:** Non-Forest Area – old ridge top hay field. If not mowed this area will be infested with Autumn Olive, Hawthorn and Multi Flora Rose

<b>Management Recommendations:</b>	<b>Management Tasks/Year</b>	
	<b>Required?</b>	<b>Year</b>
Annual mow or rotational pasture	<input type="checkbox"/>	2013-2023
Plant to trees		2016-2023
Inspect for invasive species Eradicate identified infestations (1ac)	<input checked="" type="checkbox"/>	2014 - 2020

**If a timber harvest is recommended, silvicultural method to be used:**

**Comments:** If this area is ever taken out of agricultural use this area should be planted to trees to ensure a well stocked stand of desirable species. Again, any trees planted will need protection from seasonal deer browses. With this additional work – this area should be able to support conifer trees – White Pine or Pitch-Pine, or Maples and Oak species

## *Woodland Stand Description and Management Recommendations*

**Stand # 5** - 21.6 Acres

**Dominant Species:** Dogwood, Hawthorn, Ash, Maples

**Forest Type or Dominant Vegetation:** Upland Central Hardwoods

**Stand Diameter or Size Class:** Sapling/Poletimber

**Stocking Level:** Over stocked **and/or Basal Area :** (ft<sup>2</sup>/acre)

**Stand History:** Old-Field Reversion

**Topography:** Rolling

**Invasive plants or insects impacting this stand:** Autumn Olive, small Ailanthus patch

**Present conditions for you to consider:** This area is an old pasture area that is reverting back to forestland. The major issue is the Autumn Olive that is becoming established in these areas will inhibit the development of desirable tree species. Trails pass through this area to for access to the adjacent sugar bush.

Management Recommendations:	Management Tasks/Year	
	Required?	Year
Mark property lines with paint	<input checked="" type="checkbox"/>	2013-2016
eradicate invasive species –Ailanthus ¼ ac	<input checked="" type="checkbox"/>	2013 -2023
Possible crop tree release	<input type="checkbox"/>	2020 - 2023
eradicate–Autumn Olive (20ac)	<input checked="" type="checkbox"/>	2014 -2020

**If a timber harvest is recommended, silvicultural method to be used:**

**Comments:** Maintain the trail out the ridge top. Work on the Autumn Olive eradication as time permits. This a low priority area to complete tasks, other than invasive species eradication.



Ailanthus along trail



## *Woodland Stand Description and Management Recommendations*

**Stand # 6** - 10.9 Acres

**Dominant Species:** Dogwood, Hawthorn, Ash, Maples, Poplar, Red Bud

**Forest Type or Dominant Vegetation:** Upland Central Hardwoods

**Stand Diameter or Size Class:** Sapling/Poletimber

**Stocking Level:** Fully stocked **and/or Basal Area :** (ft<sup>2</sup>/acre)

**Stand History:** Old-Field Reversion

**Topography:** Rolling

**Invasive plants or insects impacting this stand:** Autumn Olive, Multi Flora Rose

**Present conditions for you to consider:** This area is an old cleared area that is reverting back to forestland. Again the major issue is the Autumn Olive that is becoming established in these areas will inhibit the development of desirable tree species. Oil well sites at the each end of this stand.

Management Recommendations:	Management Tasks/Year	
	Required?	Year
Mark property lines with paint	<input checked="" type="checkbox"/>	2013-2016
eradicate invasive species	<input checked="" type="checkbox"/>	2018 -2023
Possible crop tree release	<input type="checkbox"/>	2020 - 2023

**If a timber harvest is recommended, silvicultural method to be used:**

**Comments:** Work on the Autumn Olive eradication as time permits. A low priority area to complete tasks. Main access road into the sugar bush(s), pass through this area



Slope above road



Tank Battery site

## *Stand Description and Management Recommendations*

**Stand # 7 - 24.2 Acres**

**Dominant Species:** H. Maple, Buckeye, Hickory, Oaks, Ash

**Forest Type or Dominant Vegetation:** Upland Central Hardwoods

**Stand Diameter or Size Class:** Medium/Large sawtimber

**Stocking Level:** Fully stocked **and/or Basal Area :** (ft<sup>2</sup>/acre)

**Stand History:** TSI - Crop tree release and Grapevine control

**Topography:** Steep

**Invasive plants or insects impacting this stand:** None noted at the time of this inspection

**Present conditions for you to consider** The majority of this stand has been developed into an active sugar bush operation. Previous TSI work released the maple trees and eliminated the grapevines. This area has tubing established to gravity flow the sap to a collection tank.

Management Recommendations:	Management Tasks/Year	
	Required?	Year
TSI to enhance Maple Growth	<input type="checkbox"/>	2013 -2023
Inspect for invasives	<input checked="" type="checkbox"/>	All years
Mark Property Lines with paint	<input checked="" type="checkbox"/>	2013-2016

**If a timber harvest is recommended, silvicultural method to be used:**

**Comments:** This area receives constant attention do to the importance of maintaining the tubing, trails and health of the Maples. Because this is a gravity flow system, the ridgetop and northern end of this stand has not been developed.



Collection Tank at base of hill



Lower slope –main flow line



Lower Slope collection lines



Mid Slope –Thinned Maples



Top end of operations on ridge top

## ***Woodland Stand Description and Management Recommendations***

**Stand # 8** - 6.3 Acres

**Dominant Species:** Tulip Poplar, Red Maple, Ash, Red Bud

**Forest Type or Dominant Vegetation:** Upland Central Hardwoods

**Stand Diameter or Size Class:** Poletimber/Small sawtimber

**Stocking Level:** Fully stocked **and/or Basal Area :** (ft<sup>2</sup>/acre)

**Stand History:** Unknown

**Topography:** Gently sloping

**Invasive plants or insects impacting this stand:** Multi-Flora Rose & scattered Grapevines

**Present conditions for you to consider** This is a well stocked stand includes both sides of a small hollow. Several old oil well tanks are located in this area. Poplar on the north facing slope, Oaks and Maples on the South facing slope.

<b>Management Recommendations:</b>	<b>Management Tasks/Year</b>	
	<b>Required?</b>	<b>Year</b>
Mark property lines with paint	<input checked="" type="checkbox"/>	2013-2016
inspection for invasive species	<input type="checkbox"/>	2013 -2023
TSI - grapevine removal (not EQIP)	<input type="checkbox"/>	2013 - 2018

**If a timber harvest is recommended, silvicultural method to be used:**

**Comments:** This area should be managed as in the same as adjacent stand No 12. This area was not harvested when #12 was. This area needs little attention at this time. The main access road to the western sugar bush is included in this area. There are scattered grapevines in this area that should be cut –very scattered

## ***Woodland Stand Description and Management Recommendations***

**Stand # 9 – 12.3 Acres**

**Dominant Species:** Maples, Ash, Tulip Poplar, Am. Beech, Yellow Buckeye

**Forest Type or Dominant Vegetation:** Upland Central Hardwoods

**Stand Diameter or Size Class:** Small/Medium sawtimber

**Stocking Level:** Fully stocked **and/or Basal Area :** (ft<sup>2</sup>/acre)

**Stand History:** TSI - Crop tree release and grapevine removal

**Topography:** Gently sloping

**Invasive plants or insects impacting this stand:** Multi flora rose

**Present conditions for you to consider:** This area is an active sugar bush. This area is being constantly inspected for down branches and trees doing damage to the tubing. Trees on both sides of the road Access road is grassed and in good condition.

A vernal pool along the access road is home to a unique genus of frogs.

<b>Management Recommendations:</b>	<b>Management Tasks/Year</b>	
	<b>Required?</b>	<b>Year</b>
Inspective for invasive species	<input checked="" type="checkbox"/>	2013-2023
Maintain trails	<input type="checkbox"/>	2013 -2023

**If a timber harvest is recommended, silvicultural method to be used:**

**Comments:** This stand has been developed into an active sugar bush operation. As in Stand #7 previous TSI work released the maple trees and eliminated the grapevines. This area has tubing established to gravity flow the sap to a collection tank.



Sugar Bush operation



Vernal Pool with annual frog population

## ***Woodland Stand Description and Management Recommendations***

**Stand # 10 – 40.2 Acres**

**Dominant Species:** Yellow Poplar, Maples, Oaks, Beech, Hickories

**Forest Type or Dominant Vegetation:** Upland Central Hardwoods

**Stand Diameter or Size Class:** Small/Medium sawtimber

**Stocking Level:** Fully stocked

**Stand History:** Harvesting - Selection (silvicultural) almost 20 yrs ago

**Topography:** Gently sloping to steeper slopes along stream

**Invasive plants or insects impacting this stand:** light infestation of grapevines

**Present conditions for you to consider:** This area was lightly selectively harvested in 1996. This is a well stocked stand that will be ready for harvest again in another 5 – 10 yrs. Scattered grapevines (light –EQIP 20 ac but cover entire area) are found in the entire area. The access road running out the entire length is in fairly good shape but culverts in drainage crossings are plugged up and beginning to wash out. Old oil well site in this stand.

<b>Management Recommendations:</b>	<b>Management Tasks/Year</b>	
	<b>Required?</b>	<b>Year</b>
Mark Property Lines	<input checked="" type="checkbox"/>	2013-2016
Work on cutting grapevines	<input checked="" type="checkbox"/>	2013 -2018

**If a timber harvest is recommended, silvicultural method to be used:**

Single Tree and Small Group Selection Vines should be cut before any harvest is planned. This area can be harvested at any point in time as long nothing negatively impacts the stand –wind, ice damage, infestations.....

**Comments:** This is one of the nicest stands on the tract. Beech, Ash & Buckeye on lower slopes and as you move up slope, more Maples, Oaks and heavy Oak , Hickories and Beech stocking



Grapevines in Beech trees

## *Woodland Stand Description and Management Recommendations*

**Stand #11** - 10.0 Acres

**Dominant Species:** H. Maple, Oaks, Elm, Ash

**Forest Type or Dominant Vegetation:** Upland Central Hardwoods

**Stand Diameter or Size Class:** Poletimber

**Stocking Level:** Fully stocked **and/or Basal Area :** (ft<sup>2</sup>/acre)

**Stand History:** No Prior Management

**Topography:** Steep

**Invasive plants or insects impacting this stand:** none noted at this inspection, but ailanthus all along property line on adjacent farm.

**Present conditions for you to consider:.** Scattered grapevines should be cut from crop trees (not enough for an EQIP cost share practice. This is the steep wooded hollow located in the NE corner of this farm. Neighbor has located and painted the property line.

Management Recommendations:	Management Tasks/Year	
	Required?	Year
Mark property line (where not painted)	<input checked="" type="checkbox"/>	2013 - 2016
Cut Grapevines	<input type="checkbox"/>	2020 - 2023

**If a timber harvest is recommended, silvicultural method to be used:**

**Comments:** Some wind damage from the July 2012 wind storm that passed through Ohio. This stand could be considered a wildlife area.



## ***Woodland Stand Description and Management Recommendations***

**Stand # 12** - 33.3 Acres

**Dominant Species:** Oaks, Hickory, Ash, Gum, Sassafras,

**Forest Type or Dominant Vegetation:** Upland Central Hardwoods

**Stand Diameter or Size Class:** Sapling/Poletimber

**Stocking Level:** Fully stocked some openings under stocked with desirable species

**Stand History:** Harvesting - "Select cut"

**Topography:** Rolling

**Invasive plants or insects impacting this stand:** Ailanthus patch & scattered Autumn Olive

**Present conditions for you to consider:** This area was harvested in 2007 and it was a logger selection cut. One small 2 acre area on the west side of the ridgetop was a basic clearcut with undesirable trees left. There are 2 oil well locations in this stand with the southern well site surrounded by Ailanthus (2 ac)

Management Recommendations:	Management Tasks/Year	
	Required?	Year
Maintain BMP's on trails	<input checked="" type="checkbox"/>	2013 – 2023
Mark property lines with paint	<input checked="" type="checkbox"/>	2013 – 2016
Eliminate Ailanthus -2 ac patch	<input checked="" type="checkbox"/>	2013 – 2016

**If a timber harvest is recommended, silvicultural method to be used:**

**Comments:** This is a high priority area to complete activities before the Ailanthus spreads further. This area is in good condition and will be ready for an another harvest in 20 years. Old house site located along the west side of the stream in this area.



Overview of harvested area





Ailanthus patch located along southern P/L below oil well site and the Pine Stand #14





Southern end of logging area looking easterly



## Woodland Stand Description and Management Recommendations

**Stand # 13** - 2.6 Acres

**Dominant Species:** Grasses

**Forest Type or Dominant Vegetation:** Non Forest Areas

**Stand Diameter or Size Class:**

**Stocking Level:** N/A

**Stand History:** Oil Well Sites (5 Total)

**Topography:** Nearly level

**Invasive plants or insects impacting this stand:** Ailanthus on one well site (St#12 below Pine area), Autumn Olive along the edges of all sites and beginning to invade sites

**Present conditions for you to consider:** Old access roads are utilized to access the sugar bush locations. Wells are shut in and not in production at this time. These grassed openings are basically food plot and nesting areas being used by a variety of mammals and bird species.

Management Recommendations:	Management Tasks/Year	
	Required?	Year
Eliminate Autumn Olive	<input checked="" type="checkbox"/>	2014 – 2020
Maintain Trails for access	<input type="checkbox"/>	2013 – 2023

**If a timber harvest is recommended, silvicultural method to be used:** N/A

**Comments:** Eliminate the Autumn Olive and then just maintain the roads – higher priority activity to prevent invasive spread.



This site is located in St. 12 –east edge

## *Woodland Stand Description and Management Recommendations*

**Stand # 14** - 2.2 Acres

**Dominant Species:** White Pine & Red Pine

**Forest Type or Dominant Vegetation:** As Listed in Dominant Species

**Stand Diameter or Size Class:** Poletimber/Small sawtimber

**Stocking Level:** Over stocked **and/or Basal Area :** (ft<sup>2</sup>/acre)

**Stand History:** No Prior Management

**Topography:** Nearly level

**Invasive plants or insects impacting this stand:** None noted at the time of this inspection.

**Present conditions for you to consider:** This stand is 35 -40 years old and was established on an 8 X 8 spacing. The Red Pine is dying out, so some natural thinning is ongoing. Some limited wind damage on some of the White Pine. Road to well site passes thru the stand

Management Recommendations:	Management Tasks/Year	
	Required?	Year
Paint Property line	<input checked="" type="checkbox"/>	2013 -2016
Inspect for invasive species	<input checked="" type="checkbox"/>	2013 - 2023

**Comments:** This is a low priority area for activities. The management choices are to clearcut this small area and allow it to regenerate into a hardwood stand or leave it alone. This is the only conifer stand on this tract. Ridge top stand



## *Woodland Stand Description and Management Recommendations*

**Stand # 15 – 6.5 Acres**

**Dominant Species:** Ash, Yellow Poplar, Maples (Red & Sugar) Aspens, Oaks

**Forest Type or Dominant Vegetation:** Upland Central Hardwoods

**Stand Diameter or Size Class:** Poletimber/Small sawtimber

**Stocking Level:** Fully stocked

**Stand History:** Unknown

**Topography:** Rolling

**Invasive plants or insects impacting this stand:** None noted at the time of this inspection.

**Present conditions for you to consider:** Aspen are beginning to fall out of the stand, allowing the Oaks to grow. Stocking is light in the southern part of the stand- trees are slightly younger (smaller) but this area is overall in good condition. Some vine honeysuckle but not a real issue in crop trees

Management Recommendations:	Management Tasks/Year	
	Required?	Year
Mark Property Lines	<input checked="" type="checkbox"/>	2013-2016
Inspect for invasives	<input type="checkbox"/>	2013 - 2023

**If a timber harvest is recommended, silvicultural method to be used:**

**Comments:** The location of this area makes it a low priority area, but with the Ailanthus in adjacent Stand 12, this area does need to be inspected on a regular basis

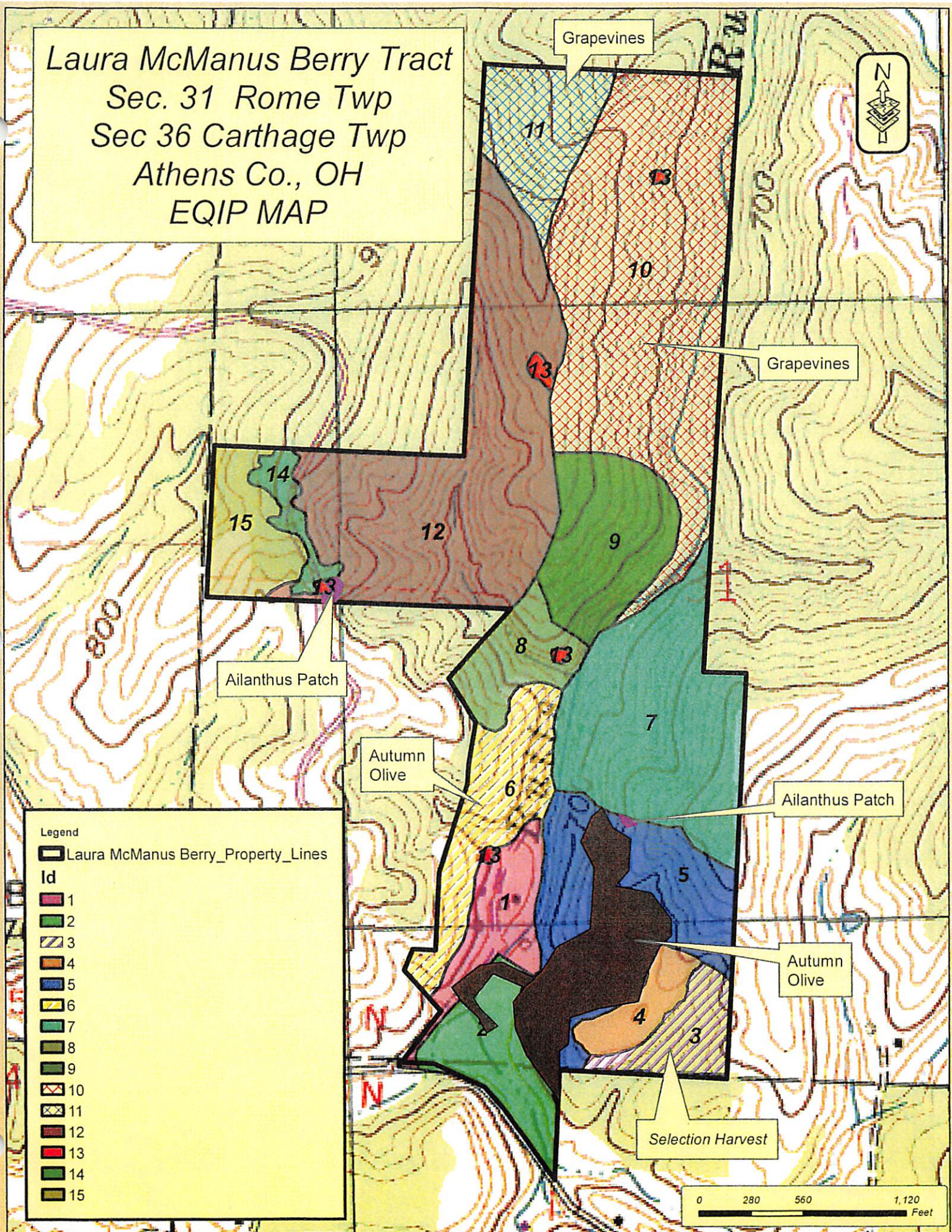


### Management Activity Schedule

Year(s) Suggested	Mgmt. Unit	Required Task?	EQIP Practice?	Acres	Recommendations
2013-2016	all	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NA	Mark property lines with paint
2013 -2016	#12 pt #5 pt	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	2.25 ac (#5 & #12)	Eradicate Ailanthus patches
2013 -2018	#10	<input type="checkbox"/>	<input checked="" type="checkbox"/>	20 ac	Cut Grapevines from this stand. Cover entire area to remove all scattered pockets of vines Low infestation
2014-2020	#2pt #4pt #5pt #13	<input type="checkbox"/>	<input checked="" type="checkbox"/>	24 acres total #2 -1ac #4 -1ac #5- 20ac #13- 2ac	Work on eradicating the Autumn Olive from these areas -mostly along roads, well sites and forest edges
2018 -2023	#6 pt	<input type="checkbox"/>	<input checked="" type="checkbox"/>	10ac	Work on eradicating the Autumn Olive from this areas
2020-2023	#11	<input type="checkbox"/>	<input checked="" type="checkbox"/>	10 ac	Cut Grapevines Cover entire areas to remove all vines Low to Medium infestation
2014 -2023	#3	<input type="checkbox"/>	<input type="checkbox"/>	5 ac	Possible selection harvest
2013-2023	Whole Property	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Next Site Visit – Woodland reviews are recommended at least once every five years, and no more than ten years, based upon the date of the last actual woodland evaluation conducted by your forester	

Before entering a timber sale agreement, or conducting other forestry work that is not listed in your activity schedule, contact your forester first to ensure compliance with your approved woodland stewardship management plan.

Laura McManus Berry Tract  
 Sec. 31 Rome Twp  
 Sec 36 Carthage Twp  
 Athens Co., OH  
 EQIP MAP



Legend

▬ Laura McManus Berry\_Property\_Lines

Id

1	Light Pink
2	Light Green
3	Diagonal Hatching
4	Light Orange
5	Blue
6	Yellow
7	Light Green
8	Light Green
9	Light Green
10	Red Cross-hatching
11	Blue Cross-hatching
12	Light Brown
13	Red
14	Light Green
15	Light Green

## ***Woodland Resource Descriptions***

**General Soils Information** – a general description of the soil type(s) and the general productive capacity of the soil:

**Soil Type(s):** Cg, DtF, GuC, GuD, UpD, VbD, VbE, WhD, WmD, WmE, WmF, WtC

**Soil Drainage Class:** A range of drainage conditions

**General Description:** See Soils maps and descriptions in Addendum for detailed descriptions. Also included in the Addendum is a map and associated chart showing the Forest Productivity (Tree Site Index) of the tract.

An on-line resource that can be used to obtain detailed soils information is:

<http://websoilsurvey.nrcs.usda.gov/app/>

**Site Class: (using Woodland Productivity):** Fair to Good

**Timber Information** - a general description of the timber characteristics of quality and potential:

Timber production is practical and possible for this property. The woodlands are stocked with a variety of marketable timber species that can produce valuable wood products now and into the future. Timber stand improvement (TSI) management practices such as grapevine control, cull tree & undesirable hardwood species control, and crop tree release will certainly enhance the quality and value of your timber resources over time, and are important tasks to implement in order to maximize the timber potential in your woodland. Quality potential is good, especially with more grapevine and cull tree control implemented.

Portions of this farm have been harvested at two different time periods. In 196 Stand # 10 was selectively harvested. This area is well stocked with desirable species. Trees are in the small sawlog size category. In 2007 Stand #12 was harvested with a logger selecting the trees for removal. Most of this area is well stocked and the residual stand will develop into desirable forest stand. Several small areas were heavily harvested and are under stocked with desirable trees. Natural regeneration is abundant and this area will fill in overtime. BMP's were implemented on both sale areas.

**Wildlife** – a general description of the wildlife habitat quality and potential:

This forestland provides valuable habitat for wildlife, including mammals, birds, and amphibians. Many of the tree species are used by this wildlife for food, cover and nesting sites. Some of the more valuable wildlife food trees species include oaks, beech, cherry, dogwood and hickory. Many other tree species are critically important to certain species of wildlife. Grapevines also are an important food and cover for birds and can be left in low quality and cull trees. Cover, food and water are all necessary to attract wildlife. Different species use different cover types, and maintaining a diversity of cover is key to attracting a wide variety of wildlife. A mixture of sapling areas, pole areas and sawtimber areas will help meet the need for habitat diversity. Small openings in the forest and/or open areas along woodland roads help provide areas for birds and their young to come and catch insects. Openings can also be seeded to grass and clover mixes to provide an additional variety of food.

Please note all habitats don't necessarily have to be present on your property...your neighbor's land may offer a habitat type different than what is available at your forest. You can extend habitat benefits using complimentary cover types beyond your boundaries...the wildlife don't mind



**Water** - a general description of the water resources on the property: Soil and water conservation practices can be applied to this property. Perennial streams should always be buffered with trees. Livestock should be kept out of streams. Water control structures should be used in areas where access trails and roadways are present.

The water and soil resources on your property should be protected and enhanced. Using the information in this plan and information available through your local Soil and Water Conservation District you can implement sound soil and water conservation practices on your property. This tract consists of a large drainage with a perennial stream present. Stream Side management zones (SMZ's) should be protected to ensure water quality.

Butts Run, an ephemeral stream bisects this farm, north to south. Stream Side Management zone (SMZ) is being protected.

**Threatened & Endangered Species** – considerations for threatened and endangered species, including the direct relationship with biological diversity:

No specific threatened or endangered species were noted on this forest land. Some threatened or endangered species that may be found in southern Ohio include the Timber Rattlesnake, Indiana Bat and American Burying Beetle. Threatened and endangered species have certain habitat requirements. Habitat requirements for threatened or endangered species may or may not be found on this forest land

Specific information on threatened or endangered species may be obtained by contacting the Ohio Department of Natural Resources Division of Natural Areas and Preserves directly to access the Natural Heritage Database. This tract has no listed species located on it after reviewing this information source.

**Best Management Practices** – maintaining the integrity and productivity of woodland sites: As bad as the last harvest was (in regards to tree selection), the logger did construct water bars and seeded the log roads during sale closeout. Trails are in good shape and erosion is minimal.

Basic protection measures used to guard your forest soils against problems related to soil/site limitations and equipment usage - rutting, excessive disturbance and compaction, erosion, and sedimentation. - are commonly referred to as Best Management Practices (BMP'S). One very easy BMP landowners may use is simply to limit heavy equipment access to dry weather periods.

Hilly to steeply sloped terrain is more subject to site disturbance and subsequent soil erosion and sedimentation. Forest management often may still be accomplished on these steep areas with the use of BMP's. Even when the forest terrain is nearly level to gently rolling, and where slope does not present a hindrance to access for management activities, it is important to keep the trails up away from the small drainages where possible. This helps protect water quality by providing a buffer strip of undisturbed soil and leaf litter where any sediment can be trapped before reaching the drainage, if some should get washed off the path

During timber harvest activities, follow the Best Management Practices outlined in the Ohio State University Bulletin #916 – BMPs for Erosion Control for Logging Practices in Ohio. This booklet is available online at [www.ohiodnr.gov/forestry/](http://www.ohiodnr.gov/forestry/) or at your local Division of Forestry office.

Practically speaking, the use of BMP's to prevent soil loss is a sound agricultural practice that helps maintain site & timber productivity . Also, implementing BMP's helps you comply with Ohio's Agricultural Pollution Abatement Law (HB 88) standards for Silvicultural Operations.

During the previous harvests, logging roads were well placed and upon completion, were graded and seeded. Roads are sill in good shape.

**Wetlands** – a general description of any wetland resources and/or vernal pools:

There are no certified wetlands located on this tract. A vernal pool is located in Stand 9 and is being protected by the landowner.

**Archeological/Historical Resources** – a general consideration and description of such resources:

Historical and cultural resources are nonrenewable and can never be replaced once destroyed. These resources provide us a unique glimpse into the past and a look at the people and how they cared for the land. Good stewardship involves recognizing these resources and protecting them. These resources should be conserved whenever possible when they are present on the property.

No known designated sites were noted on this tract. An old house site is located in ST#12

**Recreation** – current and potential recreational activities at property:

Each forest has a unique history and character...and this continues to build under your stewardship. This forest could be used for hunting, hiking, or wildlife watching. Many landowners find enjoyment in doing improvement work in their woods. Others find pleasure in watching the birds. Some folks gain gourmet foods from the woods, gathering fruits, nuts, or wild mushrooms. Flowering trees like dogwood, redbud and serviceberry, whenever present, add to the beauty of the forest.

Maintaining equine trails will improve access and your opportunities for use of the area. A walk or horseback ride in the forest provides a time of learning but it can also be a time to relax. The woodlands can be a quiet place of solitude after a busy day at work, or anytime for that matter.

**Aesthetics** – current or future aesthetic considerations for the woodland:

Forest aesthetics is often associated with older, more mature forests. However, it also has been said that beauty is in the eye of the beholder. Many folks enjoy mature forests with big trees...yet other folks find beauty in a young forest vibrant with the songs of early successional forest songbirds.

Forest stewardship management addresses these and other various aesthetic tastes, and may weigh in visual goals of the neighbors. When you are weighing aesthetic goals, consider as a "group" 1) visual aesthetics, 2) the aesthetics of a dynamic functioning forest ecosystem, and 3) the particular wildlife species you hope to encourage at your property.

**Other Resources** – a general description of any other notable woodland resources:

Associated forest resources vary somewhat from forest to forest, but typically include a variety of herbaceous plants present within the woodlands or old fields within a property.

Spring, summer, and fall wild flowers provide non-timber benefits to anyone who takes the time to enjoy the blossoms. Along with the flowers, there is a vast array of insect life – pleasant and sometimes unpleasant – that is essential to good ecosystem function. Native and non-native honey bees and butterflies are examples of beneficial insects. Medicinal shrubs and herbs and maple syrup are more examples of other beneficial forest resources.

Maple Syrup is the major product being managed for on this farm. All management activities are designed to improve the health of the sugar bush and increase sap production.

**Forest Health** – a general description of the health of the woodland: The areas that were heavily harvested are in acceptable condition. The remaining areas are in good shape, well stocked with desirable trees.

### **How To Maintain Forest Health**

Maintaining the health of your forest is important to help prevent damaging problems from interfering with the benefits you receive from your forest. We recommend that you consider the following general guidelines to maintain forest health:

1. *Consider that some amount of damage from disease, wildlife pest, insects, and weather is normal and can be beneficial to the overall health of your forest.*
2. *Remove excessive numbers of over mature, weak or damaged trees that are most likely to be affected by damaging agents. However, consider that some of these trees are beneficial to certain wildlife species.*
3. *Encourage mixtures of tree species to minimize damage from problems that attack specific types trees.*
4. *Discourage tree species that are not well adapted for the climate and soil properties in your area.*
5. *Maintain a density of trees that provides them with adequate growing space.*
6. *Avoid wounding your trees and compacting the soil during treatments and recreational activities.*
7. *Prevent livestock from grazing in the woods.*
8. *Avoid implementing treatments during or soon after events like droughts or outbreaks of insects or diseases.*
9. *Stay informed of pest alerts and current problems.*
10. *Monitor your forest frequently for symptoms of damaging agents.*
11. *Consider utilizing pest suppression programs recommended by your state or county forestry agency.*
12. *Support regulations geared towards reducing the spread of non-native pests, and reducing levels of air pollution.*
13. *Follow quarantine regulations for specific pests and their host plants.*
14. *Salvage dead or damaged trees after a problem occurs.*

**Fire** – identify hazards, fire breaks, safety zones, note dead trees from insects or disease, etc.:

Properties and homes in Ohio are not immune to the risks of fire and fire-related damage. Spring and fall are Ohio's main "fire seasons". A step one may take to protect one's forest is to have a system of paths that may double as fire breaks. For the home site, maintain good access for fire vehicles, create a defensible space around your home and outbuildings by removing flammable materials such brush, leaves, sticks, and twigs; remove these from roofs and gutters too. Landscape around buildings with less flammable plants and materials, avoid evergreens by or near the home, keep an outdoor water source, and avoid outdoor burning. For more information on outdoor fire safety and fire safety around your home, Firewise brochures are available from the Ohio Division of Forestry (toll-free 877-247-8733). You may also contact your local fire department with questions about Firewise and home safety regarding wildfire.

Ohio Fire Laws: ORC 1503.18 regarding kindled fires prohibits outdoor open burning statewide in unincorporated areas during the months of March, April, May, October, and November between the hours of 6:00 am and 6:00 pm. ORC 1503.18 is administered by the Ohio Division of Forestry; call toll-free 877-247-8733 with questions. OAC 3745.19 regarding outdoor burning is administered by the Ohio Environmental Protection Agency (EPA); EPA notification is required for many types of open burns in Ohio. Call 614-644-2270 with questions, or visit [www.epa.ohio.gov/dapc/general/openburning.aspx](http://www.epa.ohio.gov/dapc/general/openburning.aspx).

**Carbon Cycle** – Healthy, sustainably managed forests can help to reduce atmospheric carbon:

When you as a forest landowner choose to maintain your forest land rather than convert it a non-forest use, you are making a significant contribution to the carbon sequestration equation; a healthy forests sequester carbon. Forest landowners that hold an interest or focus upon the carbon cycle have opportunities to enhance carbon sequestration on the property by conducting various silvicultural practices that enhance the forest's ability to sequester carbon, and by re-establishing woodlands on non-forested land.

Active forest managers may find opportunities for carbon trading and participation in ecosystem service markets. For further information about carbon sequestration, forestry, and carbon markets, you may visit the Chicago Climate Exchange (CCX) link <http://www.chicagoclimatex.com/content.jsf?id=242>. Also, there are many organizations (both for- and non-profit, mostly online) that offer carbon credits to individual consumers, families, companies, etc. A few examples of "over-the-counter" market organizations are Native Energy ([www.nativeenergy.com](http://www.nativeenergy.com)) and Terrapass ([www.terrapass.com](http://www.terrapass.com)). Reference to these listed sites does not include an endorsement.

**Forestry Terms** – Forestry terminology for landowners, professional foresters, and others:

Consistent forestry terminology is essential to anyone interested and involved in the science, management, and conservation of forests.

The Society of American Foresters (SAF) offers a great resource for such forestry terminology: "The Dictionary of Forestry". This dictionary is an excellent tool available for anyone to learn more about the language used in forestry. The dictionary provides precision, clarity, and consistency in communication of forestry terms.

You may access "The Dictionary of Forestry" for free at SAF at [www.dictionaryofforestry.org](http://www.dictionaryofforestry.org). If internet access is not available, one may purchase a printed version from SAF (toll free 866-897-8760).

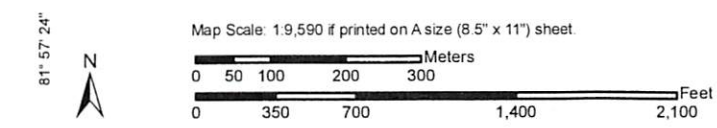
## Addendums

- Soil Map and Map Unit Description
- Forest Productivity (Site Index)
- Forestland Productivity - Report





































### **Landowner Packet included the following:**

- How to treat grapevines.
- How to mark property lines.
- Autumn Olive Handout
- Ailanthus Handout
- Herbicide Fact Sheet – F45
- Forestry Terms
- Helpful Web Sites

Soil Map—Athens County, Ohio



### MAP LEGEND

<b>Area of Interest (AOI)</b>		Very Stony Spot
 Area of Interest (AOI)		Wet Spot
<b>Soils</b>		Other
 Soil Map Units	<b>Special Line Features</b>	
<b>Special Point Features</b>		Gully
 Blowout		Short Steep Slope
 Borrow Pit		Other
 Clay Spot	<b>Political Features</b>	
 Closed Depression		Cities
 Gravel Pit	<b>Water Features</b>	
 Gravelly Spot		Streams and Canals
 Landfill	<b>Transportation</b>	
 Lava Flow		Rails
 Marsh or swamp		Interstate Highways
 Mine or Quarry		US Routes
 Miscellaneous Water		Major Roads
 Perennial Water		Local Roads
 Rock Outcrop		
 Saline Spot		
 Sandy Spot		
 Severely Eroded Spot		
 Sinkhole		
 Slide or Slip		
 Sodic Spot		
 Spoil Area		
 Stony Spot		

### MAP INFORMATION

Map Scale: 1:9,590 if printed on A size (8.5" × 11") sheet.

The soil surveys that comprise your AOI were mapped at 1:15,840.

Please rely on the bar scale on each map sheet for accurate map measurements.

Source of Map: Natural Resources Conservation Service  
 Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>  
 Coordinate System: UTM Zone 17N NAD83

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Athens County, Ohio  
 Survey Area Data: Version 13, Feb 9, 2010

Date(s) aerial images were photographed: 6/24/2004; 9/21/2004

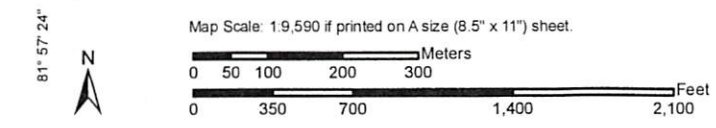
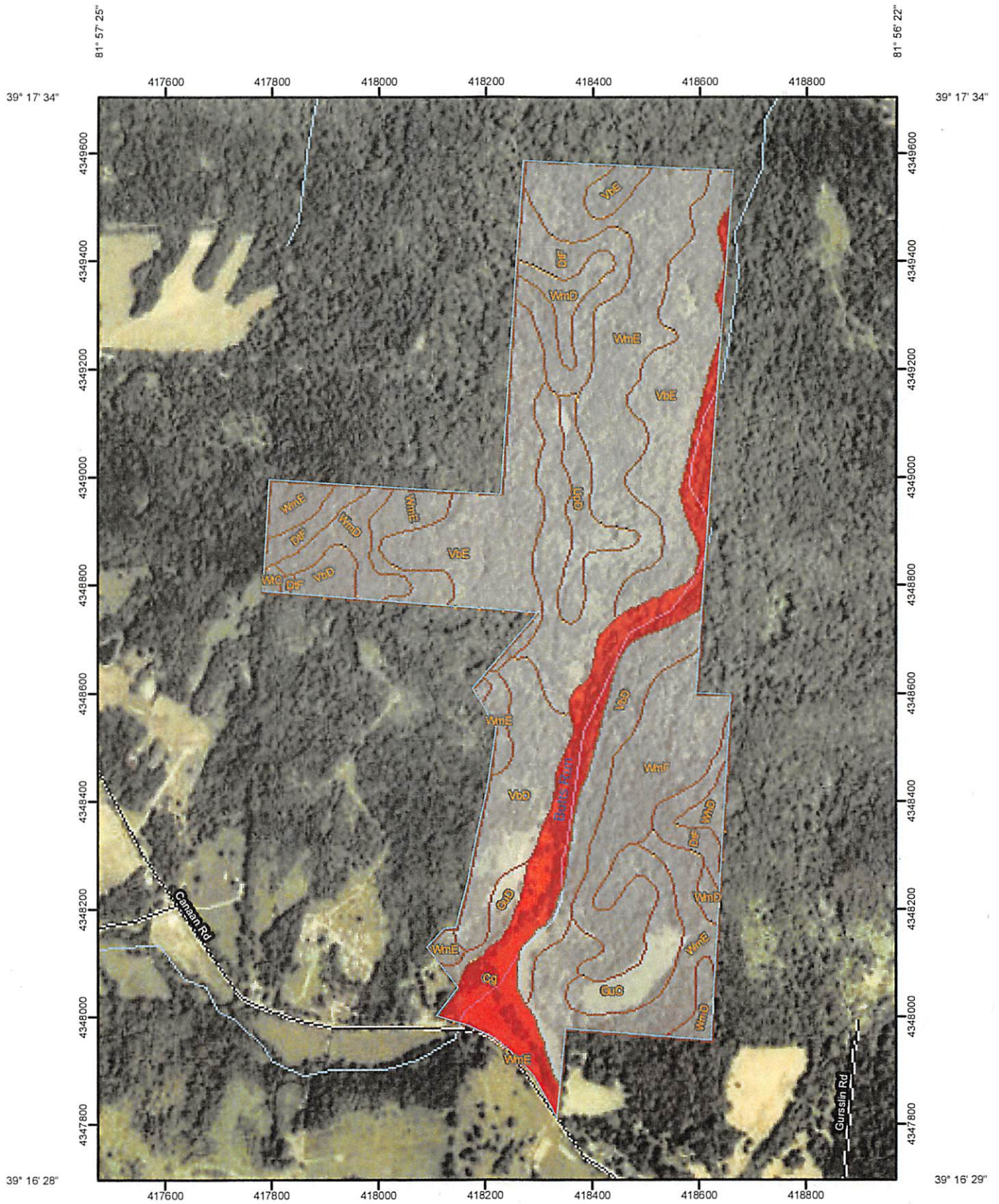
The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

## Map Unit Legend

Athens County, Ohio (OH009)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Cg	Chagrin silt loam, frequently flooded	21.6	11.2%
DtF	Dekalb-Westmoreland complex, 40 to 70 percent slopes	13.4	7.0%
GuC	Guernsey-Upshur complex, 8 to 15 percent slopes	7.1	3.7%
GuD	Guernsey-Upshur complex, 15 to 25 percent slopes	2.1	1.1%
UpD	Upshur silty clay loam, 15 to 25 percent slopes	5.0	2.6%
VbD	Vandalia-Brookside complex, 15 to 25 percent slopes	23.7	12.3%
VbE	Vandalia-Brookside complex, 25 to 40 percent slopes	36.3	18.9%
WhD	Westmoreland-Guernsey silt loams, 15 to 25 percent slopes	1.5	0.8%
WmD	Westmoreland-Upshur complex, 15 to 25 percent slopes	9.9	5.1%
WmE	Westmoreland-Upshur complex, 25 to 40 percent slopes	54.5	28.3%
WmF	Westmoreland-Upshur complex, 40 to 70 percent slopes	16.9	8.8%
WtC	Woodsfield silt loam, 8 to 15 percent slopes	0.4	0.2%
<b>Totals for Area of Interest</b>		<b>192.4</b>	<b>100.0%</b>




Forest Productivity (Tree Site Index): sugar maple (Brendemuehl, McComb, Thomson 1961 (075))—Athens County, Ohio



## MAP LEGEND

### Area of Interest (AOI)

 Area of Interest (AOI)

### Soils

 Soil Map Units

### Soil Ratings

 <= 86

 Not rated or not available

### Political Features

 Cities

### Water Features

 Streams and Canals

### Transportation

 Rails

 Interstate Highways

 US Routes

 Major Roads

 Local Roads

## MAP INFORMATION

Map Scale: 1:9,590 if printed on A size (8.5" x 11") sheet.

The soil surveys that comprise your AOI were mapped at 1:15,840.

Please rely on the bar scale on each map sheet for accurate map measurements.

Source of Map: Natural Resources Conservation Service  
Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>  
Coordinate System: UTM Zone 17N NAD83

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Athens County, Ohio  
Survey Area Data: Version 13, Feb 9, 2010

Date(s) aerial images were photographed: 6/24/2004; 9/21/2004

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

## Forest Productivity (Tree Site Index): sugar maple (Brendemuehl, McComb, Thomson 1961 (075))

Forest Productivity (Tree Site Index): sugar maple (Brendemuehl, McComb, Thomson 1961 (075))— Summary by Map Unit —Athens County, Ohio (OH009)				
Map unit symbol	Map unit name	Rating (feet)	Acres in AOI	Percent of AOI
Cg	Chagrin silt loam, frequently flooded	86	21.6	11.2%
DtF	Dekalb-Westmoreland complex, 40 to 70 percent slopes		13.4	7.0%
GuC	Guernsey-Upshur complex, 8 to 15 percent slopes		7.1	3.7%
GuD	Guernsey-Upshur complex, 15 to 25 percent slopes		2.1	1.1%
UpD	Upshur silty clay loam, 15 to 25 percent slopes		5.0	2.6%
VbD	Vandalia-Brookside complex, 15 to 25 percent slopes		23.7	12.3%
VbE	Vandalia-Brookside complex, 25 to 40 percent slopes		36.3	18.9%
WhD	Westmoreland-Guernsey silt loams, 15 to 25 percent slopes		1.5	0.8%
WmD	Westmoreland-Upshur complex, 15 to 25 percent slopes		9.9	5.1%
WmE	Westmoreland-Upshur complex, 25 to 40 percent slopes		54.5	28.3%
WmF	Westmoreland-Upshur complex, 40 to 70 percent slopes		16.9	8.8%
WtC	Woodsfield silt loam, 8 to 15 percent slopes		0.4	0.2%
<b>Totals for Area of Interest</b>			<b>192.4</b>	<b>100.0%</b>

### Description

The "site index" is the average height, in feet, that dominant and codominant trees of a given species attain in a specified number of years. The site index applies to fully stocked, even-aged, unmanaged stands.

This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this attribute, only the representative value is used.

### Rating Options

*Units of Measure:* feet

*Tree:* sugar maple

*Site Index Base:* Brendemuehl, McComb, Thomson 1961 (075)

*Aggregation Method:* Dominant Component

*Component Percent Cutoff:* None Specified


*Tie-break Rule:* Higher

*Interpret Nulls as Zero:* No



## MAP LEGEND

### Area of Interest (AOI)


 Area of Interest (AOI)


### Soils


 Soil Map Units


### Soil Ratings

  $\leq 62$

  $> 62$  AND  $\leq 70$

  $> 70$  AND  $\leq 78$

  $> 78$  AND  $\leq 81$

  $> 81$  AND  $\leq 86$

 Not rated or not available

### Political Features

 Cities

### Water Features

 Streams and Canals

### Transportation

 Rails

 Interstate Highways

 US Routes

 Major Roads

 Local Roads

## MAP INFORMATION

Map Scale: 1:9,590 if printed on A size (8.5" × 11") sheet.

The soil surveys that comprise your AOI were mapped at 1:15,840.

Please rely on the bar scale on each map sheet for accurate map measurements.

Source of Map: Natural Resources Conservation Service  
Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>  
Coordinate System: UTM Zone 17N NAD83

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Athens County, Ohio  
Survey Area Data: Version 13, Feb 9, 2010

Date(s) aerial images were photographed: 6/24/2004; 9/21/2004

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

## Forest Productivity (Tree Site Index): northern red oak (Schnur 1937 (820))

Forest Productivity (Tree Site Index): northern red oak (Schnur 1937 (820))— Summary by Map Unit — Athens County, Ohio (OH009)				
Map unit symbol	Map unit name	Rating (feet)	Acres in AOI	Percent of AOI
Cg	Chagrin silt loam, frequently flooded	86	21.6	11.2%
DtF	Dekalb-Westmoreland complex, 40 to 70 percent slopes	62	13.4	7.0%
GuC	Guemsey-Upshur complex, 8 to 15 percent slopes	78	7.1	3.7%
GuD	Guemsey-Upshur complex, 15 to 25 percent slopes	78	2.1	1.1%
UpD	Upshur silty clay loam, 15 to 25 percent slopes	70	5.0	2.6%
VbD	Vandalia-Brookside complex, 15 to 25 percent slopes	77	23.7	12.3%
VbE	Vandalia-Brookside complex, 25 to 40 percent slopes	77	36.3	18.9%
WhD	Westmoreland-Guemsey silt loams, 15 to 25 percent slopes	81	1.5	0.8%
WmD	Westmoreland-Upshur complex, 15 to 25 percent slopes	81	9.9	5.1%
WmE	Westmoreland-Upshur complex, 25 to 40 percent slopes	81	54.5	28.3%
WmF	Westmoreland-Upshur complex, 40 to 70 percent slopes	81	16.9	8.8%
WtC	Woodsfield silt loam, 8 to 15 percent slopes		0.4	0.2%
<b>Totals for Area of Interest</b>			<b>192.4</b>	<b>100.0%</b>

### Description

The "site index" is the average height, in feet, that dominant and codominant trees of a given species attain in a specified number of years. The site index applies to fully stocked, even-aged, unmanaged stands.

This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this attribute, only the representative value is used.

### Rating Options

*Units of Measure:* feet

*Tree:* northern red oak

*Site Index Base:* Schnur 1937 (820)

*Aggregation Method:* Dominant Component

*Component Percent Cutoff:* None Specified

*Tie-break Rule:* Higher

*Interpret Nulls as Zero:* No



## Forestland Productivity

This table can help forestland owners or managers plan the use of soils for wood crops. It shows the potential productivity of the soils for wood crops.

*Potential productivity* of merchantable or *common trees* on a soil is expressed as a site index and as a volume number. The *site index* is the average height, in feet, that dominant and codominant trees of a given species attain in a specified number of years. The site index applies to fully stocked, even-aged, unmanaged stands. Commonly grown trees are those that forestland managers generally favor in intermediate or improvement cuttings. They are selected on the basis of growth rate, quality, value, and marketability. More detailed information regarding site index is available in the "National Forestry Manual," which is available in local offices of the Natural Resources Conservation Service or on the Internet.

The *volume of wood fiber*, a number, is the yield likely to be produced by the most important tree species. This number, expressed as cubic feet per acre per year and calculated at the age of culmination of the mean annual increment (CMAI), indicates the amount of fiber produced in a fully stocked, even-aged, unmanaged stand.

*Trees to manage* are those that are preferred for planting, seeding, or natural regeneration and those that remain in the stand after thinning or partial harvest.

Reference:

United States Department of Agriculture, Natural Resources Conservation Service, National forestry manual.

### Report—Forestland Productivity

Forestland Productivity— Athens County, Ohio				
Map unit symbol and soil name	Potential productivity			Trees to manage
	Common trees	Site Index	Volume of wood fiber	
			<i>Cu ft/ac</i>	
Cg—Chagrin silt loam, frequently flooded				
Chagrin	Black cherry	—	—	Black walnut, Eastern white pine, Northern red oak, Red pine, Tuliptree, White ash, White oak
	Black walnut	—	—	
	Northern red oak	86	72	
	Sugar maple	86	57	
	Tuliptree	96	100	
	White ash	—	—	
	White oak	—	—	

Forestland Productivity—Athens County, Ohio				
Map unit symbol and soil name	Potential productivity			Trees to manage
	Common trees	Site Index	Volume of wood fiber	
			<i>Cu ft/ac</i>	
DtF—DeKalb-Westmoreland complex, 40 to 70 percent slopes				
Dekalb	Northern red oak	62	29	Black oak, Eastern white pine, Red pine, Tuliptree, Virginia pine, White ash
Westmoreland	Eastern white pine	75	143	Black cherry, Eastern white pine, Northern red oak, Red pine, Tuliptree, White ash, White oak
	Northern red oak	81	57	
	Tuliptree	90	86	
GuC—Guernsey-Upshur complex, 8 to 15 percent slopes				
Guernsey	Black cherry	—	—	Eastern white pine, Northern red oak, Red pine, Tuliptree, White ash, White oak
	Black walnut	—	—	
	Northern red oak	78	57	
	Sugar maple	—	—	
	Tuliptree	95	100	
	White ash	—	—	
	White oak	—	—	
Upshur	Eastern white pine	80	143	Eastern white pine, Tuliptree, Virginia pine, White ash
	Northern red oak	65	43	
	Tuliptree	80	72	
	Virginia pine	66	100	
GuD—Guernsey-Upshur complex, 15 to 25 percent slopes				
Guernsey	Black cherry	—	—	Eastern white pine, Northern red oak, Red pine, Tuliptree, White ash, White oak
	Black walnut	—	—	
	Northern red oak	78	57	
	Sugar maple	—	—	
	Tuliptree	95	100	
	White ash	—	—	
	White oak	—	—	
Upshur	Eastern white pine	90	172	Eastern white pine, Tuliptree, Virginia pine, White ash
	Northern red oak	70	57	
	Tuliptree	90	86	
	Virginia pine	70	114	

Forestland Productivity— Athens County, Ohio				
Map unit symbol and soil name	Potential productivity			Trees to manage
	Common trees	Site Index	Volume of wood fiber	
			<i>Cu ft/ac</i>	
UpD—Upshur silty clay loam, 15 to 25 percent slopes				
Upshur	Eastern white pine	90	172	Austrian pine, Eastern white pine, Tuliptree, Virginia pine
	Northern red oak	70	57	
	Tuliptree	90	86	
	Virginia pine	70	114	
VbD—Vandalia-Brookside complex, 15 to 25 percent slopes				
Vandalia	Northern red oak	77	57	Austrian pine, Eastern white pine, Tuliptree, Virginia pine
	Tuliptree	90	86	
	Virginia pine	80	114	
Brookside	Black cherry	—	—	Eastern white pine, Northern red oak, Red pine, Tuliptree, White ash, White oak
	Black walnut	—	—	
	Northern red oak	86	72	
	Sugar maple	—	—	
	Tuliptree	96	100	
	White ash	—	—	
	White oak	—	—	
VbE—Vandalia-Brookside complex, 25 to 40 percent slopes				
Vandalia	Northern red oak	77	57	Austrian pine, Eastern white pine, Tuliptree, Virginia pine
	Tuliptree	90	86	
	Virginia pine	80	114	
Brookside	Black cherry	—	—	Eastern white pine, Northern red oak, Red pine, Tuliptree, White ash, White oak
	Black walnut	—	—	
	Northern red oak	86	72	
	Sugar maple	—	—	
	Tuliptree	96	100	
	White ash	—	—	
	White oak	—	—	

Forestland Productivity— Athens County, Ohio				
Map unit symbol and soil name	Potential productivity			Trees to manage
	Common trees	Site Index	Volume of wood fiber	
			<i>Cu ft/ac</i>	
WhD—Westmoreland-Guernsey silt loams, 15 to 25 percent slopes				
Westmoreland	Eastern white pine	75	143	Eastern white pine, Northern red oak, Red pine, Tuliptree, White ash, White oak
	Northern red oak	81	57	
	Tuliptree	90	86	
Guernsey	Black cherry	—	—	Eastern white pine, Northern red oak, Red pine, Tuliptree, White ash, White oak
	Black walnut	—	—	
	Northern red oak	78	57	
	Sugar maple	—	—	
	Tuliptree	95	100	
	White ash	—	—	
	White oak	—	—	
WmD—Westmoreland-Upshur complex, 15 to 25 percent slopes				
Westmoreland	Eastern white pine	75	143	Eastern white pine, Northern red oak, Red pine, Tuliptree, White ash, White oak
	Northern red oak	81	57	
	Tuliptree	90	86	
Upshur	Eastern white pine	90	172	Austrian pine, Eastern white pine, Tuliptree, Virginia pine
	Northern red oak	70	57	
	Tuliptree	90	86	
	Virginia pine	70	114	
WmE—Westmoreland-Upshur complex, 25 to 40 percent slopes				
Westmoreland	Eastern white pine	75	143	Eastern white pine, Northern red oak, Red pine, Tuliptree, White ash, White oak
	Northern red oak	81	57	
	Tuliptree	90	86	
Upshur	Eastern white pine	90	172	Austrian pine, Eastern white pine, Tuliptree, Virginia pine
	Northern red oak	70	57	
	Tuliptree	90	86	
	Virginia pine	70	114	

Forestland Productivity— Athens County, Ohio				
Map unit symbol and soil name	Potential productivity			Trees to manage
	Common trees	Site Index	Volume of wood fiber	
			<i>Cu ft/ac</i>	
WmF—Westmoreland-Upshur complex, 40 to 70 percent slopes				
Westmoreland	Eastern white pine	75	143	Eastern white pine, Northern red oak, Red pine, Tuliptree, White ash, White oak
	Northern red oak	81	57	
	Tuliptree	90	86	
Upshur	Eastern white pine	90	172	Austrian pine, Eastern white pine, Tuliptree, Virginia pine
	Northern red oak	70	57	
	Tuliptree	90	86	
	Virginia pine	70	114	
WtC—Woodsfield silt loam, 8 to 15 percent slopes				
Woodsfield	Black cherry	—	—	Black walnut, Eastern white pine, Green ash, Northern red oak, Tuliptree, White ash, White oak
	Red maple	—	—	
	Slippery elm	—	—	
	White ash	—	—	
	White oak	76	57	

### Data Source Information

Soil Survey Area: Athens County, Ohio  
 Survey Area Data: Version 13, Feb 9, 2010