

# Woodland Stewardship Management Plan

RECEIVED

**Owner's Information:**

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

Owner: Ms. Lady Borton

Signed: Lady Borton

Date: November 28, 2018

NOV 28 2018

Jim Thompson  
Athens County Auditor

**Preparer's Information:**

Prepared by: Dean A. Berry

Signature: Dean A. Berry

Woodland Management Services  
c/o Dean A. Berry, Consulting Forester  
10935 Rosewood Lane  
Athens, Ohio 45701  
TSP 10-6547

Date: October 30<sup>th</sup>, 2018  
Field Inspection Date

740-541-4647 mobile  
fatlabtreefarm@gmail.com

This plan is valid for the period beginning November 28, 2018 and ending November 27, 2028.

Plan Status: New

NRCS Representative Signature: \_\_\_\_\_

Date: \_\_\_\_\_



## ***Woodland Stewardship Management Plan***

Owner Ms. Lady Borton  
Address 12800 Stella Rd.  
Millfield, OH 45761  
Phone \_\_\_\_\_ Case Number \_\_\_\_\_  
Cell \_\_\_\_\_ Email Address ladyborton@gmail.com  
County Athens Township/Village/City: Ames Twp. Sections 34 & 27  
Parcel(s): C010010042600, C010010047401  
Location: Tract is located at the end of the dead-end road.

Woodland Stewardship Acreage:	<u>92.27</u>	Non-woodland Stewardship Acreage*:	<u>9.4</u>
Total Property Acres	<u>101.67</u>	* 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 Tax Reduction

Property coordinates (report in WGS 84, decimal degrees)

Latitude: 39.416626 Longitude: -82.039870

### ***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. Improve the productivity of this farm for future generations. This involves planting trees in abandoned fields and working to eradicate non-native invasive species of trees & shrubs.

### ***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. Most of the woodland in Athens County is in areas of steep and very steep terrain. This terrain is well suited to trees.

Ms. Lady Borton purchased this farm in 1972. A Farm Conservation Plan was developed in 1973. Some of the improvement's projects completed over the years were -spring development, tree planting (2000 conifers in 1973), barn and pasturing area revamping and planting of Black Locust in 1981. Lady has been an absentee landowner for many years but will be moving back from overseas in the near future to reside on her Athens County farm.



# *Woodland Stand Description and Management Recommendations*

## **General Definitions**

**Stand:** A contiguous group of trees sufficiently uniform in age-class distribution, composition, and structure, and growing on a site of sufficiently uniform quality, to be a distinguishable and manageable unit.

**Diameter:** Diameter breast height (DBH) is measured at 4.5 feet above ground.

**Seedling** – DBH is not measureable.

**Sapling** – 1” to 4” DBH

**Poletimber** – 5” to 11.5” DBH

**Small Sawtimber** – 12” to 16” DBH

**Medium Sawtimber** – 18” to 22” DBH

**Large Sawtimber** – 24” DBH and larger

**Topography:** Refers to the slope of the land.

**Aspect:** Is the direction that a slope faces.

**Stocking Level/Basal Area:** An indication of growing-space of the stand. Basal area is the cross-sectional area of all stems of a species or all stems in a stand measured at DBH. Low basal areas are considered to be understocked which can lead to negative impacts on the residual trees in a stand. High basal areas are considered to be overstocked and can lead to negative impacts on the residual trees in a stand.

**Silviculture:** The art and science of controlling the establishment, growth, composition, health, and quality of forests and woodlands to meet the diverse needs and values of landowners and society on a sustainable basis.

**Invasive Species:** Species not native to Ohio and in most cases not native to the United States. Invasive species can inhibit growth and establishment of native hardwoods if they are not controlled.

**Timber Stand Improvement (TSI):** Improving the quality of a forest stand by removing or deadening undesirable species to achieve desired stocking levels and species composition.

## **Crown Classes:**

**Dominate** – Crown extends above canopy, direct sunlight to the top and sides of crowns

**Co-Dominate** – Crown within the main canopy, direct sunlight to the top and limited on sides

**Intermediate** – Crown in the lower part of main canopy, limited sunlight

**Overtopped** – Crown entirely under the main canopy, no direct sunlight

## **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).

**A list of common forestry terms is included as a handout in this plan.**



### Athens County GIS



Notes

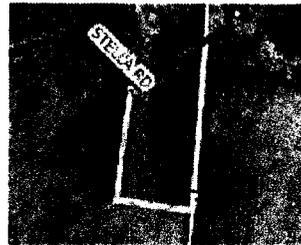
Adelaide Borton Tract



# Data For Parcel C010010042600

## Base Data

**Parcel:** C010010042600  
**Owner:** BORTON ADELAIDE  
**Address:** 0 STELLA RD



[+] Map this property.

## Mailing Address

**Mailing Name:** BORTON LADY  
**Address:** 12800 STELLA RD  
**City State Zip:** MILLFIELD OH 45761

## Geographic

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

## Legal

**Neighborhood:** 00003000  
**Legal Description:** 13-06-00 SEC 34 1.670A

**Legal Acres:** 1.67  
**Land Use:** (100) A - AGRICULTURAL VACANT LAND

**Map Number:** 0-0-0-0

**Property Class:** AGRICULTURAL  
**Range Township Section:** 0-0-0

## Valuation

	Appraised	Assessed (35%)
<b>Land Value:</b>	\$2,760.00	\$970.00
<b>Building Value:</b>	\$0.00	\$0.00
<b>Total Value:</b>	\$2,760.00	\$970.00
<b>CAUV Value:</b>		\$510.00
<b>Taxable Value:</b>		\$180.00

## Tax Credits

**Owner Occupancy Credit:** NO  
**Homestead Reduction:** NO

## Notes

**Notes:**



# Data For Parcel C010010047401

## Base Data

**Parcel:** C010010047401  
**Owner:** BORTON ADELAIDE  
**Address:** 12800 STELLA RD

[+] Map this property.

## Mailing Address

**Mailing Name:** BORTON LADY  
**Address:** 12800 STELLA RD  
**City State Zip:** MILLFIELD OH 45761

## Geographic

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

## Legal

**Neighborhood:** 00003000  
**Legal Description:** 13-06-00 SEC 27 FRA 24  
100.000A  
**Map Number:** 0-0-0-0

**Legal Acres:** 100  
**Land Use:** (101) A - CASH GRAIN OR GENERAL FARM  
**Property Class:** AGRICULTURAL  
**Range Township Section:** 0-0-0

## Valuation

	Appraised	Assessed (35%)
<b>Land Value:</b>	\$174,350.00	\$61,020.00
<b>Building Value:</b>	\$36,280.00	\$12,700.00
<b>Total Value:</b>	\$210,630.00	\$73,720.00
<b>CAUV Value:</b>	\$33,480.00	
<b>Taxable Value:</b>	\$24,420.00	

## Tax Credits

**Owner Occupancy Credit:** NO  
**Homestead Reduction:** NO

## Notes

**Notes:**



566  
D-4  
Warrant

CONSERVATION PLAN MAP

Soil Conservation District

Owner Bortone & Wright

Operator \_\_\_\_\_

County Athens State Ohio

Photo Nos. BBW-30-24

Date prepared \_\_\_\_\_

Approx. Scale 8"=1 Mile



PREPARED BY U. S. DEPARTMENT OF AGRICULTURE, SOIL CONSERVATION SERVICE

465





Lady Borton Tract  
Sections 34 & 27 (FRA 24)  
Ames Twp., Athens Co., OH  
101.67 Ac



Stella Rd.

LaFollette Rd.  
Twp. Rd. 328

739

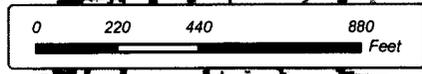
843

900

900

Legend

 Borton\_Lady\_Property\_Lines

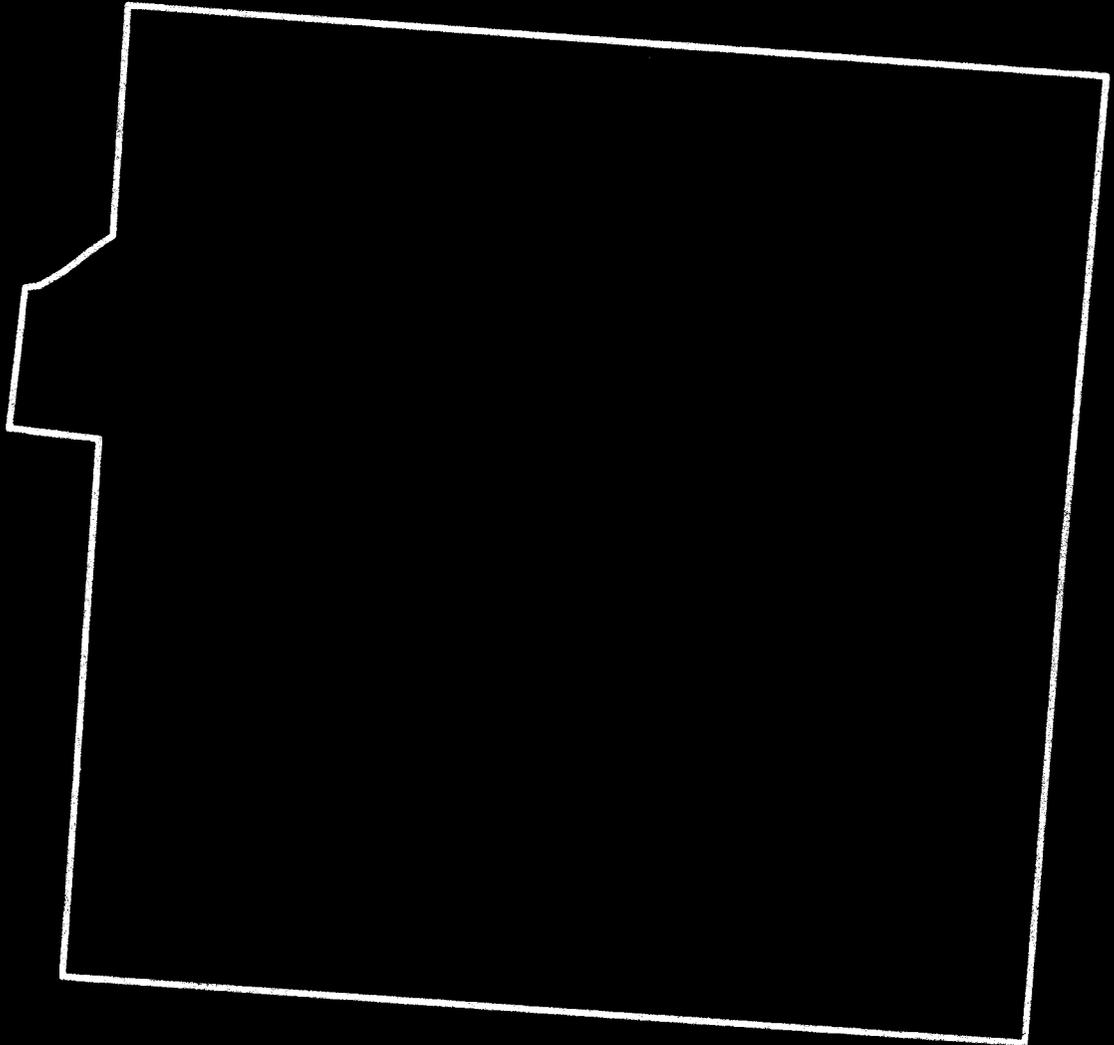




Lady Borton Tract  
Sections 34 & 27 (FRA 24)  
Ames Twp., Athens Co., OH  
101.67 Ac



Stella Rd.



Legend

Borton\_Lady\_Property\_Lines

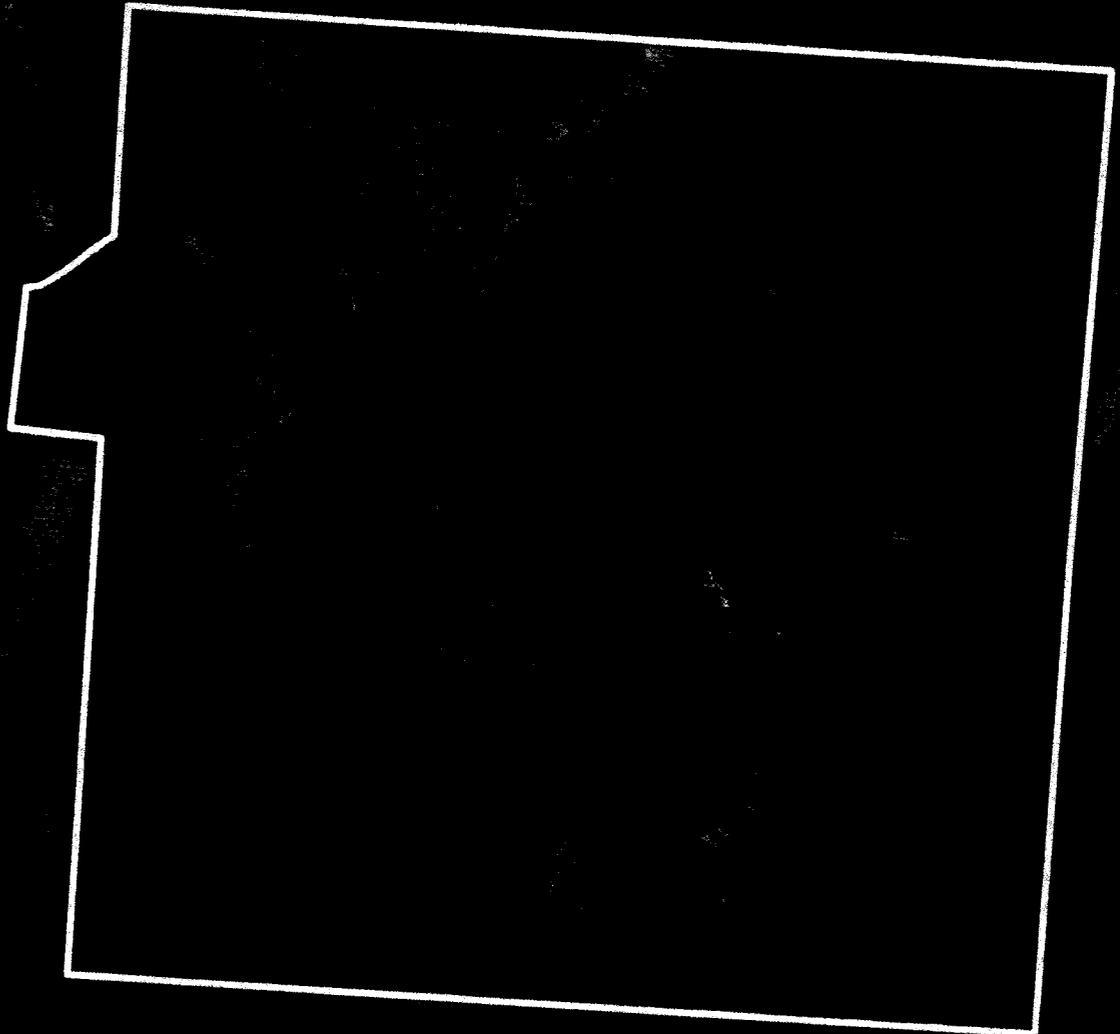
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Feet



Lady Borton Tract  
Sections 34 & 27 (FRA 24)  
Ames Twp., Athens Co., OH  
101.67 Ac

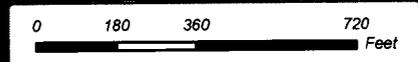


Stella Rd.



Legend

Borton\_Lady\_Property\_Lines





Lady Borton Tract  
Sections 34 & 27 (FRA 24)  
Ames Twp., Athens Co., OH  
101.67 Ac



900

Stella Rd.

LaFollette Rd.  
Twp. Rd. 328

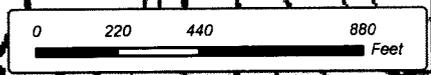


Legend

Borton\_Lady\_Property\_Lines

Id

	1
	2
	3
	4
	5
	6
	7
	8
	9

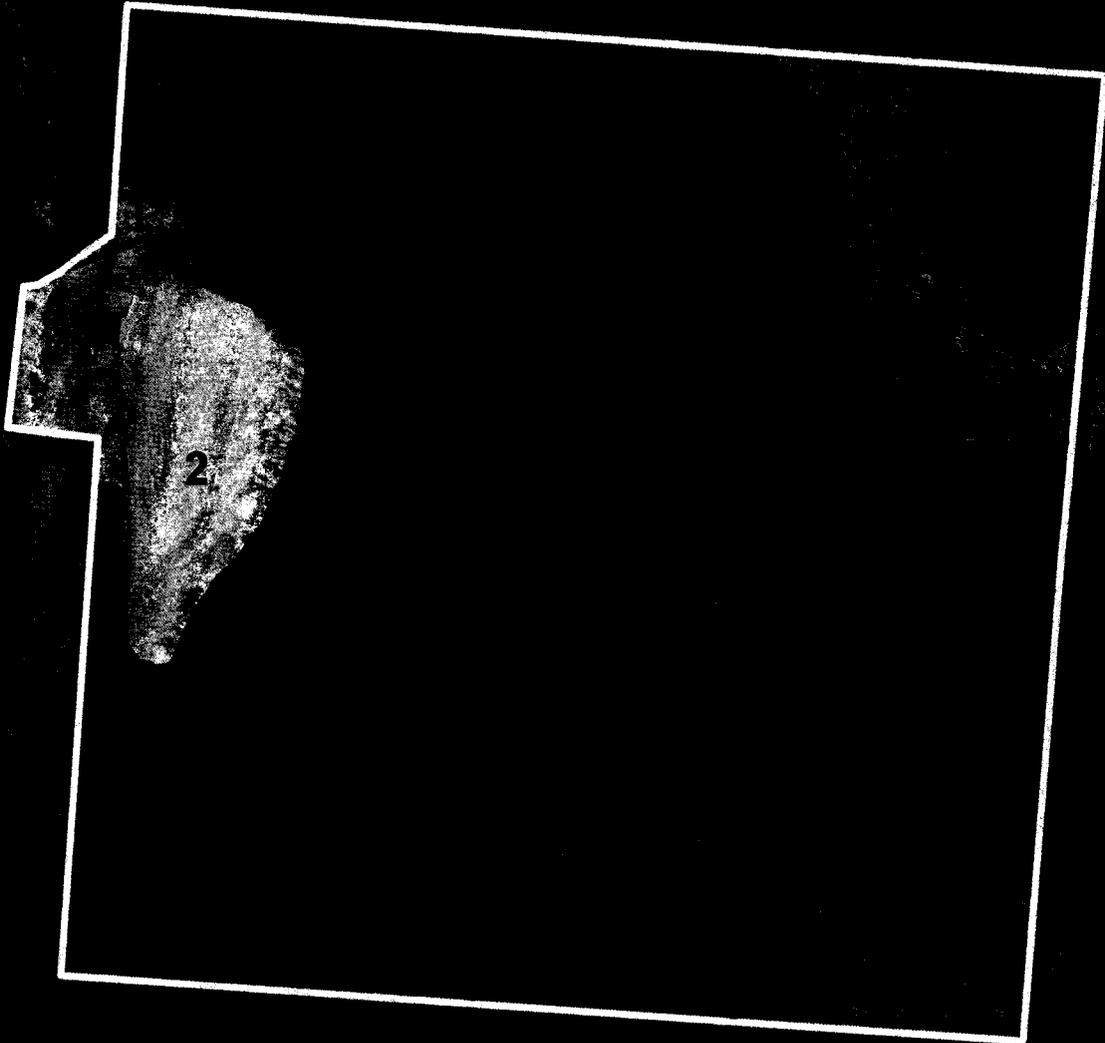




Lady Borton Tract  
Sections 34 & 27 (FRA 24)  
Ames Twp., Athens Co., OH  
101.67 Ac



Stella Rd.



Legend

Borton\_Lady\_Property\_Lines

- Id
- 1
  - 2
  - 3
  - 4
  - 5
  - 6
  - 7
  - 8
  - 9





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

**Stand # 1** - 1.0 acres      Non-Forested Area\_ Residential Area

**Dominant Species:** NA

**Forest Type or Dominant Vegetation:** N/A

**Stand Diameter or Size Class:** N/A

**Stocking Level:** N/A

**Stand History:** N/A

**Topography:** Gently sloping

**Invasive plants or insects impacting this stand:** Autumn Olive/Amur/Privet/Ailanthus and grapevines along Stand edges (addressed in adjacent stand descriptions).

**Stand Description:** This stand covers the residential area. The farm house, associated outbuildings, yard space and driveway are included in this stand. The residential area is semi-wooded with a variety of yard trees & shrubs.

**Past management activities completed in this stand:** Ailanthus along the driveway has been treated. Yard area mowed. Some grapevines cut from trees close to the house.

<b><i>Management Recommendations:</i></b>
Annually inspect for invasive species & eradicate any found

**Is a timber harvest recommended?** N/A

**Comments:** The edges of this area will be a persistent "problem area" for the landowner, regarding non-native invasive plants trying to become established in.

**Desired Future Conditions:**

**Desired Forest Type or Dominant Vegetation:**

**Desired Stand Structure:**



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

**Stand #2** - 8.4 acres      Non-Forest Stewardship Area – Agricultural Area

**Dominant Species:** NA

**Forest Type or Dominant Vegetation:** NA

**Stand Diameter or Size Class:** N/A

**Stocking Level:** N/A

**Stand History:** N/A

**Topography:** Gently sloping

**Invasive plants or insects impacting this stand:** Autumn Olive along field edges is the biggest issue, Multi Flora Rose and Japanese Vine Honeysuckle in some areas.

**Stand Description:** This area covers the active agricultural use lands on this tract. This included the pasture area and hay field area. All non-native invasive species and habitat improvement work located along these fields is addressed in the adjacent stand descriptions.

**Past management activities completed in this stand** mowing, clearing brush from field areas, barn in this area has been rebuilt.

<b><i>Management Recommendations:</i></b>
Eradicate any non-native invasive species found as time permits.

**Is a timber harvest recommended?** N/A

**Comments:** Current plans are for keeping these areas in agricultural use. If this areas, or parts of this area, are ever taken out of agricultural use, they should be planted to trees at that time. Contact your local Service Forester or Athens County SWCD office for planting recommendations.

**Desired Future Conditions:** Non- Forest Use – Agricultural lands

**Desired Forest Type or Dominant Vegetation:**

**Desired Stand Structure:**



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

**Stand # 3** - 55.97 acres

**Dominant Species:** Sassafras, Tulip Poplar, Red Maple, Dogwood, Black Cherry, Spice Bush, Red Bud, Sycamore, Black Locust, Hawthorn, Honey Locust, Black Walnut, Hickory spp., Ash(dead), Osage Orange and a few scattered Oak spp. seedlings

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

**Stand Diameter or Size Class:** Seedling/Sapling scattered larger trees in ravines & drainages

**Stocking Level:** Under stocked in most areas with desirable species

**Stand History:** Old-Field Reversion

**Topography:** Gently sloping side slope areas with several steep slopes along both sides of the ridge that forms the "backbone" of this tract.

**Invasive plants or insects impacting this stand:** scattered grapevines in stand, EAB, Autumn Olive & Multi Flora Rose, Japanese Honeysuckle, Amur, Privet, Ailanthus.

**Stand Description:** This stand covers most of this farm. This area had been open pasture/hay production land, in the early 1960's, and reverted back into forestland –middle successional stage of development. Part of this area is heavy briars and brush that is difficult to traverse except on the established trails. Overall, Autumn Olive/Bush Honeysuckle is present throughout the entire stand. Stocking levels of trees vary greatly, with some small openings of grass only. These areas could be site prepped and then planted to desirable species of trees. Oil & Gas facilities in this area.

**Past management activities completed in this stand:** Property lines painted with orange paint. Several trails are kept mowed. Some grapevines have been cut.

### ***Management Recommendations:***

Continue to locate & mark property lines with paint, redo every 5 years, or as needed

Cut scattered grapevines from crop trees in this area

Work on eradication of Autumn Olive/Amur/Privet as time permits

Mow trails annually to maintain access through this area

Possible tree planting in openings

**If a timber harvest is recommended:** No\_ Landowner may utilize dead Ash for firewood

**Comments:** EAB present in the Ash trees in this area. Nice young walnut trees scattered throughout the area. Area could be improved by planting Oak and other desirable tree species in this area. Non-native invasive species in this area are almost beyond control, concentrate on eradicating the grapevines from the "crop" tree species. Keep property lines painted, and let it develop for this 10-year management period.



Succession is the natural process of reforestation. This transition from grass to weeds to shrubs to trees may happen in one decade or it may take as long as a century to complete. Often, forests are cleared and farmed until it is no longer profitable to do so. This causes fields to be abandoned and lie fallow.

During early succession the weeds are the first plants to appear in an abandoned field. Asters, goldenrod, honeysuckle, thistle, ragweed and blackberry are common weeds to quickly invade an abandoned field.

During middle succession the next wave of invaders to gain a foothold are the shrubs and small trees. Some common shrubs and small trees found on transition sites are multi-flora rose, sumac, poison ivy, highbush blueberry, dogwood, crabapple, persimmon and sassafras.

During late succession, if the seed source is close by, black locust, Virginia pine, black cherry, red maple, and tulip poplar soon become established. After five to ten years these intolerant and moderately tolerant trees will have overtopped and eliminated the shrubby plants. These intolerant trees usually reach maximum development at 60 to 75 years of age. Following this, at a slower pace, the intermediate tolerant oaks and tolerant sugar maple begin to occupy the understory.

### **Planting recommendations developed by ODNR DOF Service Forestry**

Summer prior to planting: mow a strip at least 3 - 4 feet wide where each row of trees will be planted.

September prior to planting: Spray glyphosate herbicide in a strip 3-4 feet wide where each row of trees will be planted in the rows that were mowed in the summer. **(Mow these strips in your field as low as possible, and then spray)**

Autumn prior to planting: order recommended number of seedlings of each recommended species. **(Suggest –Pin Oak, Swamp White Oak and Bald Cypress in wet areas - White Oak spp., Red Oak spp., Persimmon, Dogwood, Am. Plum)**

March: plant recommended seedlings at recommended spacing. **(I recommend an 8' X 10' spacing – the 10' being the width between rows – 544 trees/acre or a maximum of 10' X 10' spacing \_436 trees/ac.**

Each summer for 1 to 3 years after planting: mow between each row of seedlings or apply herbicide around seedling to control competing grasses. **Note –do not damage seedling stem by weedeating or scraping the seedling with the mower. This will damage the tree and cause a permeant defect in the tree.**

Each March for 1 to 3 years after planting: plant replacement seedlings as necessary to maintain at least 300 trees per acre.

**Desired Future Conditions:** Let area develop into a hardwood forest again, lower slope area should produce quality Walnut trees.

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

**Desired Stand Structure:** Uneven Aged



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

**Stand # 4 - 2.0 acres**

**Dominant Species:** White Oak, Black Oak, Scarlet Oak, Sugar Maple, Hickory spp., Red Maple, Am. Beech, Black Locust, Sassafras, Ash (dead)

**Forest Type or Dominant Vegetation:** Oak-Hickory

**Stand Diameter or Size Class:** All size classes

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

**Stand History:** Grazing

**Topography:** Steep side slope area

**Invasive plants or insects impacting this stand:** Autumn Olive/Bush Honeysuckle along the edges of stand & EAB

**Stand Description:** This area covers the small steep side slope area adjacent to the northern property line of this farm. This is a narrow band of trees that was too steep to heavily pasture. Overall, low quality trees but they are important for mass production, because of the limited number of Oaks on this portion of the farm. Most of the large trees present on this slope are low quality or have defect. The larger hollow Maple and Oak trees provide nesting & cavity dwelling animals/birds critical nesting structures.

**Past management activities completed in this stand:** Property line painted with orange paint

### ***Management Recommendations:***

Cut grapevines from any potential crop trees - leave a few in "junk" trees for soft mass food source

**Is a timber harvest recommended?** No, not necessary at this time.

**Comments:** Poor soils, dry site, steep slope area. This area needs little attention in this 10-year management period. Area providing hard/soft mass for wildlife and seed source for natural regeneration of Oaks into the abandoned field area.

**Desired Future Conditions:** Maintain area as a native hardwood area

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

**Desired Stand Structure:** Uneven Aged



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

**Stand # 5** - **4.4** acres

**Dominant Species:** Ash (dead), Black Cherry, Am. Elm, Hawthorn, Autumn Olive, Black Locust, Honey Locust, Red Bud, scattered Black Walnut, Sassafras

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

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

**Stocking Level:** Under stocked with desirable species

**Stand History:** Old-Field Reversion

**Topography:** Gently sloping to steeply sloping upper slope area

**Invasive plants or insects impacting this stand:** Autumn Olive, Bush Honeysuckle, Japanese Honeysuckle, grapevines, Emerald Ash Borer (EAB)

**Stand Description:** This upper slope area, above the planted pine stand, was pastured and then abandoned. Again, this is a composite area of natural middle to late successional development of woody shrubs and saplings. Thick understory of brush & briars because of the open canopy. Autumn Olive and Bush Honeysuckle are becoming established in this area because EAB has killed all the Ash trees in this stand, allowing additional sunlight and open space to regenerate in. Numerous openings of grass cover are still found in this area. Vernal pools and springs on this slope area.

**Past management activities completed in this stand:** Property lines located and painted with orange paint.

<b><i>Management Recommendations:</i></b>
Work on the eradication of Autumn Olive/Bush Honeysuckle as time permits
Cut the grapevines out of the black Walnut trees in this area

**If a timber harvest is recommended:** No not in this 10-year management cycle

**Comments:** This area will continue to naturally develop into forestland again but will take time because of the poor soils and heavy infestation of non-native invasive plants. This is a low priority area for work in this 10-year period once the grapevines have been cut from the Walnut trees.

**Desired Future Conditions:** Work to create a fully stocked stand of desirable trees

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

**Desired Stand Structure:** Uneven Aged



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

**Stand # 6 - 4.0 acres**      Red & White Pine Plantation

**Dominant Species:** Planted Red & White Pine   Native Hwds - Am Elm, Black Walnut, Black Cherry, Tulip Poplar

**Forest Type or Dominant Vegetation:** Softwood Plantation

**Stand Diameter or Size Class:** Poletimber

**Stocking Level:** Fully stocked

**Stand History:** Other open field planted to trees

**Topography:** Gently sloping

**Invasive plants or insects impacting this stand:** grapevines in stand, Emerald Ash Borer (EAB)

**Stand Description:** This area was planted to trees in the Spring of 1973. 1000 White Pine & 1000 Red Pine were planted in an old field area. Trees were established on an 8' X 8' spacing. Native hardwood trees have invaded into this area, some are valuable species like Black Cherry and Walnut. Grapevines are an issue in this area. Trees average 10"-16" in diameter at dbh. Growth rate is slowing down, and the amount of live crown is barely the 1/3 live crown ratio which is the desirable standard.

**Past management activities completed in this stand:** 1973- planted pine trees  
Property line painted with orange paint in 2018

<b><i>Management Recommendations:</i></b>
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Cut the grapevines from this stand, cover entire stand
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**If a timber harvest is recommended:** No not in this 10-year management cycle. This area is not going to be thinned -wildlife habitat not a timber production goal.

**Comments:** This area is the only conifer stand on this tract and provides habitat diversity for a variety of wildlife species. Cutting the grapevines is the only issues in this stand currently.

**Desired Future Conditions:** Maintain this area as a pine plantation if possible.

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

**Desired Stand Structure:** Even Aged



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

**Stand # 7 - 4.5 acres**

**Dominant Species:** Sugar Maple, Hickories, lower slope has Tulip Poplar, Black Walnut & Spice Bush, Ash(dead)

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

**Stand Diameter or Size Class:** Poletimber/Small sawtimber, with scattered larger sawlog trees

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

**Stand History:** Grazing by the previous owner (1950's)

**Topography:** Steep side slope area

**Invasive plants or insects impacting this stand:** Autumn Olive along the edges of Stand #3. Grapevines found on slope area of this stand. EAB damage is evident.

**Stand Description:** Again, this area encompasses a small wooded slope area adjacent to the old field area. The entire stand is stocked with Sugar Maple trees. Trees are 50+ years old and are growing at an acceptable rate for the site & soil conditions. There is limited access into this area because of the property line and steep terrain. Upper slope area is open understory, whereas the lower moist soil site has heavy understory of briars and spice bush. Again, vernal pools are found in the lower slope area.

**Past management activities completed in this stand:** None noted except for property line being located and painted with orange paint.

<b><i>Management Recommendations:</i></b>
Continue to mark all boundary lines with paint, remark every 5 years or as needed
Work on eradicating the non-native invasive species along the edges as time permits
Cut grapevines from crop trees

**Is a timber harvest recommended?** No, not necessary currently.

**Comments:** Steep slope area has some quality trees present. This area needs little attention in this 10-year management period once the grapevines have been cut in this area. Quality Sugar Maple trees in this area.

**Desired Future Conditions:** Allow area to mature into a mixed hardwood area.

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

**Desired Stand Structure:** Uneven Aged



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

**Stand # 8** - 7.0 acres

**Dominant Species:** Black Locust, Osage Orange, Hawthorn, Ash (dead), with a few Hickories, Red Maple, Persimmon, Black Oak, White Oak and a few Black Walnut trees

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

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

**Stocking Level:** Under stocked with desirable tree species

**Stand History:** Grazing, by previous owners

**Topography:** Gently sloping with some steep slope areas

**Invasive plants or insects impacting this stand:** Scattered Grapevines in stand, EAB, Autumn Olive/Bush Honeysuckle

**Stand Description:** This is a mid to late -successional hardwood stand that has naturally developed. This area was once cleared for agricultural purposes and has grown up with pioneer tree species. This is a dry, rocky, thin soil upper slope area that has very low productivity. This area provides cover for deer but has little or no timber value. The potential for producing timber trees on this area is limited. Basically, this is worn out pasture land. The scattered large "wolf" trees indicate the area was once an open pasture area. This also resulted in the epicormic branching prevalent on the White Oak trees.

**Past management activities completed in this stand:** property lines located and painted with orange paint.

<b><i>Management Recommendations:</i></b>
Continue to mark property lines with paint, redo every 5 years or as needed
Cut scattered grapevines from this area (not EQIP)
Inspections for non-native invasive species – eradicate non-native invasive species identified as time permits

**If a timber harvest is recommended:** No not in this 10-year management cycle.

**Comments:** Very low priority area for any silvicultural work. A gas pipeline is located adjacent to the property line fence.

**Desired Future Conditions:** Allow area to naturally develop for the next 10 years.

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

**Desired Stand Structure:** Uneven Aged



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

**Stand # 9** - 14.4 acres Wooded Riparian Area

**Dominant Species:** White Oak, Red Oak, Black Oak, Sugar Maple, Red Maple, Am. Beech, Am. Elm, Hickory spp., Yellow Poplar, Black Walnut, Ash(dead)

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

**Stand Diameter or Size Class:** Poletimber/Small sawtimberwith scattered larger diameter trees

**Stocking Level:** Fully stocked, most areas with desirable species

**Stand History:** Grazing

**Topography:** Draws/Ravines and side slope areas

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

**Stand Description:** This area encompasses the stream channel and associated side ravines of an intermittent stream that passes through the southwestern corner of this farm. As with all the wooded areas, this area had been pastured in the past. Overall this area is closed canopy with an open understory, with only shade tolerant seedlings in the understory. Area is growing some quality Sugar Maple and Oak trees. Scattered grapevines throughout the area. This Stand was separated out in this Plan due to the importance of protecting the stream side management zone (SMZ). All activities in this area need to be completed in a manner that will minimize the impact on the stream. Several small quality Black Walnut trees can be found throughout this area, mixed in with the maples and oaks.

**Past management activities completed in this stand:** property lines located and painted with orange paint.

<b><i>Management Recommendations:</i></b>
Cut grapevines from all potential future "crop" trees and treat the scattered Barberry identified in the understory
Repaint the property lines every 5 years or when necessary to remain visible

**Is a timber harvest recommended?** No Not necessary in this 10-year period

**Comments:** This site contains the largest trees on this tract. Entire area has been pastured in the past.

A Streamside Management Zone (SMZ) is a forested strip or area next to a creek or stream that is managed with specific attention to instream and downstream water protection. SMZ's should be maintained around both intermittent and perennial streams, lakes, ponds, naturally flowing springs, and reservoirs. Forest management activities within an SMZ should



leave the forest floor essentially undisturbed with minimum soil exposure. Trails should not be constructed within an SMZ, except at designated crossings. Roads should cross the stream at a right angle. Drainage structures such as wing ditches, water bars, and cross drain culverts should vent their runoff before they enter the SMZ. Functioning as buffer strips, SMZ's are very effective in filtering sediment (soil particles) from surface runoff. The water in the runoff can and should reach the stream, but the vegetation in the SMZ filters sediment and other suspended solids resulting from the forest management activity. The trees immediately adjacent to the water provide woody debris to benefit aquatic organisms. The trees also provide shade to the stream, preventing any unnatural changes in water temperature. Direct sunlight can drastically raise water temperatures, which may lower the oxygen content of the water and make it difficult for fish and other aquatic organisms to live.

**Desired Future Conditions:** Forested riparian buffer area

**Desired Forest Type or Dominant Vegetation:** Bottomland Hardwoods - better drained site

**Desired Stand Structure:** Uneven Aged



## Recommended Management Activity Schedule

Year(s) Suggested	Mgmt. Unit	Required Task?	EQIP Practice?	Acres	Recommendations
2018, 2023, 2028	All	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NA	Inspect & remark any portions of property lines with paint and signs necessary to help prevent illegal trespass. <b>This task must be completed before this farm is eligible for enrolment into either OFTL or CAUV property tax reduction programs.</b>
2019 -2024	9	<input type="checkbox"/>	<input checked="" type="checkbox"/>	14 acres	Cut scattered grapevines and work on eradicating the Barberry shrubs identified in this area. Cover entire stand.
2022 -2026	5 & 6	<input type="checkbox"/>	<input checked="" type="checkbox"/>	8 acres	Cut grapevines out of all the conifer trees, Black Walnut trees and other potential "crop" trees. Medium infestation-entire areas
2024-2028	7 & 8	<input type="checkbox"/>	<input type="checkbox"/>	11 acres	Cut grapevines out of all the Maple trees, Black Walnut trees and other potential "crop" trees. Cover entire stands treating the scattered vines.
2020 -2028	Entire farm	<input type="checkbox"/>	<input checked="" type="checkbox"/>	50+	As time permits, pick areas to work on eradicating the Bush Honeysuckle /Autumn Olive from. Annually inspect areas for other non-native invasive species like Barberry, Privet and Ailanthus.
2019 -2028	3	<input type="checkbox"/>	<input type="checkbox"/>	5-10 acres total	Site prep and plant the open parts of this field to trees that benefit wildlife and provide timber income. In addition, cut and treat the non-native invasive species in these areas to eliminate seed sources and planting site contamination, as time permits.
2018 -2028	All	<input type="checkbox"/>	<input type="checkbox"/>	NA	Maintain (mow) all roads and trails on this tract at least annually for access & wildlife benefit
2023 & 2028	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



Lady Borton Tract  
 Sections 34 & 27 (FRA 24)  
 Ames Twp., Athens Co., OH  
 Activity Map



St 3  
 Work on eradication of patches of non-native invasive species in this stand. Cut grapevines from the scattered Walnut trees. Possible tree planting of open areas with a desirable mixture of hwd. trees.

St 5 & 6  
 Cut all grapevines from Conifer trees and all Walnut & Cherry trees

St 7 & 8  
 Cut all grapevines from Hard Maple, Black Walnut & other "crop" trees.

St 9  
 Cut all grapevines from "crop" trees  
 Treat Barberry bushes in under-story

This entire farm has infestation of numerous non-native invasive species of shrubs & trees. Population levels vary depending on location. Overall, the shaded wooded stands have fewer issues. Pick a spot and try and work on the fruit bearing plants

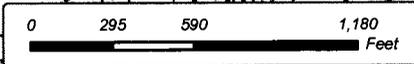
Property lines have recently been marked with orange paint. Re-do every 5 years or as necessary to be easily visible.

**Legend**

Borton\_Lady\_Property\_Lines

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## ***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):** EbF, GuD, StD, UpC, UsD, VbD, WhF, WmE, WtC

**Soil Drainage Class:** Moderately well drained to well drained

**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 Species Used - Northern Red Oak rating

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

Timber production potential is good for this property because of the fact nothing has been harvested in the last 45+ years and the woods have had a chance to mature. The scattered 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 elimination of non-native invasive species of woody shrubs & trees 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. Emerald Ash Bore has caused damage to the forested areas throughout the farm

Some of the wooded stands on this farm are young and in fair condition but need some attention (Stands 5,7 & 8). The planted Pine trees in Stand 6 is being impacted by grapevines and hardwood tree regeneration. Stand 9 has some of the largest trees on this farm but has been pastured in the past.

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

Your 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 doesn't mind.



The diversified size class of trees & shrubs of the forested land on this tract provides suitable habitat for a variety of game and non-game species of birds and animals. These areas of thick understory benefit both game & non-game species of mammals and birds.

**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 farm forms the headwaters of 2 un-named intermittent streams, both located in the southern ½ of this tract, that eventually flow into McDougall Creek. A small pond is located in St 3 (it is almost filled in). In addition, several wet weather springs and vernal pools are found in various parts of the farm and provide seasonal water sources for wildlife.

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

There are no areas identified in the National Wetlands Inventory Database, except for the intermittent streams, flowing south from this farm into McDougall Creek.

Search was completed 9/2018

**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 the trails will improve access and your opportunities for use of the area. A walk in the forest provides a time of learning for all family members, but it can also be a time to relax. The woodlands can be a quiet place of solitude after a busy day, 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.

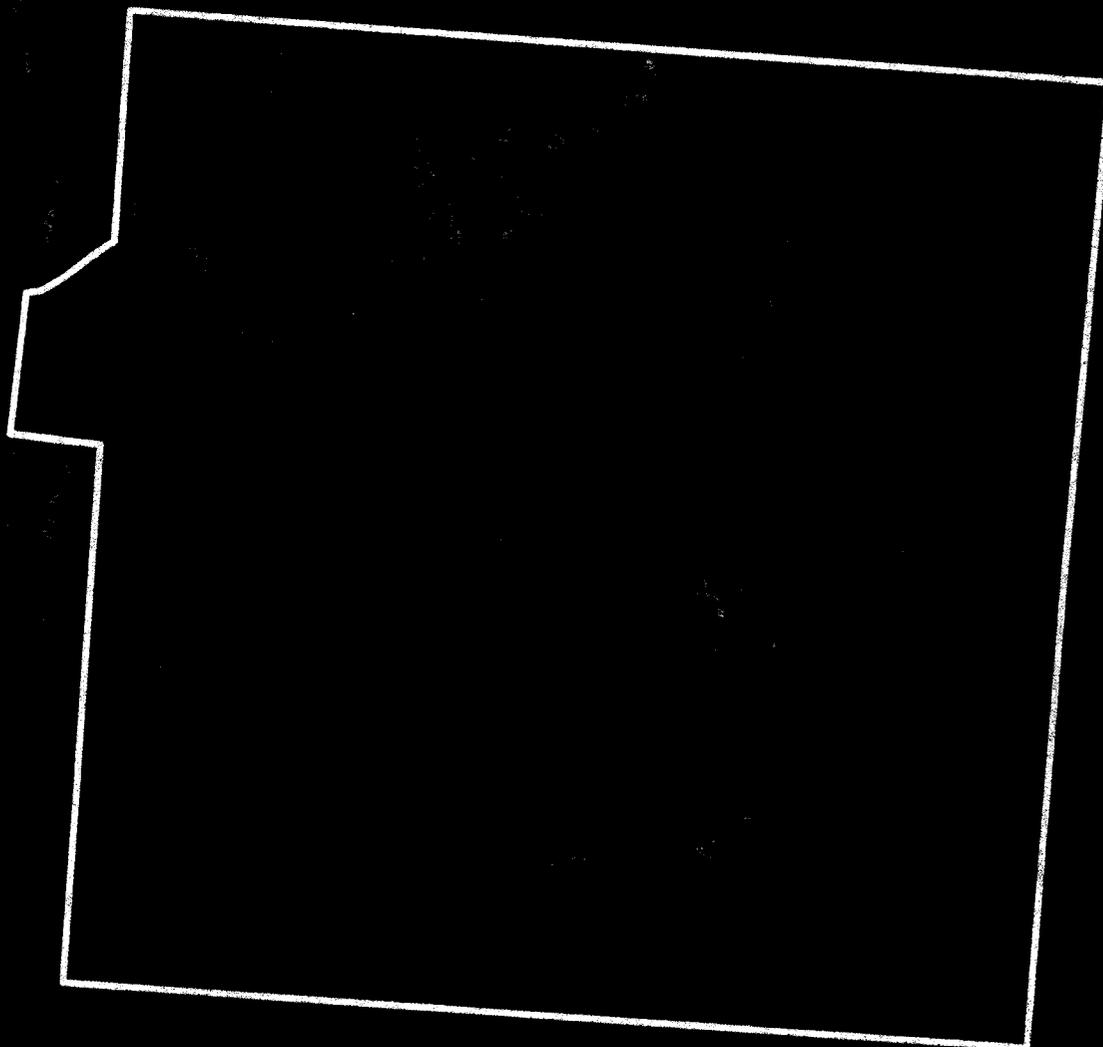
This property is located at the end of a dead-end road, so limited people have access to see the visual aesthetics features of this farm. Great panoramic views of the surrounding area form the top of the ridge in the center of this farm.



Lady Borton Tract  
Sections 34 & 27 (FRA 24)  
Ames Twp., Athens Co., OH  
101.67 Ac  
Wetlands Map



Stella Rd.



Legend

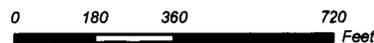
Borton\_Lady\_Property\_Lines

Wetlands

**WETLANDS**

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

U.S. Fish and Wildlife Service, National Wetlands Team  
wetlands\_team@fws.gov





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

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

The Division of Wildlife (DOW) participates in an inter-disciplinary Environmental Review Program within the Ohio Department of Natural Resources (ODNR). The DOW conducts its portion of the review subject to its statutory authority. For its' role as the state wildlife agency, the DOW provides guidance and recommendations on how to minimize and/or avoid impacts to threatened and endangered species, and other vulnerable wildlife. An environmental review considers documented species, the habitats that are present, and the potential impacts on species and habitats.

For many projects, demonstrating coordination with ODNR is a requirement that must be fulfilled in order to secure funding, licensing, or permitting, at both the state and federal level. Coordination letters that are prepared through ODNR's Environmental Review Program are done so under the authority of the National Environmental Policy Act (NEPA), the Fish and Wildlife Coordination Act (FWCA), the Clean Water Act (CWA), the Coastal Zone Management Act (CZMA), and other applicable laws and regulations. An environmental review represents coordination with ODNR and fulfills the necessary obligations.

If you are only interested in identifying which state listed species may be present within the vicinity of your project site or area of interest, please refer to the State Listed Wildlife Species by County and the State Listed Wildlife and Plant Species By County. These lists provide the species documented within each county, along with their respective state listing. Please note that these lists should only be used as a cursory reference, and not the only source of information when developing a project. Please note that this type of online review does not represent coordination with the ODNR or DOW.

**Included in this Plan is a listing of State Listed Species for Athens County.**

#### **What to Submit for Environmental Review**

For an environmental review of a proposed project, Landowner must submit the following:

1. Project Description: Site location (e.g., county, latitude and longitude), Onsite habitats, Proposed work Proposed impacts (for example, is in-water work necessary? Is tree cleaning necessary?), Proposed BMP's
2. Maps that delineate the area of impact or work area: Topographic, Aerial Site plans
3. Photographs representative of the site
4. Shapefiles, KMZ files

To request an Environmental Review of your project, please submit the project information to the following dedicated email: [environmentalreviewrequest@dnr.state.oh.us](mailto:environmentalreviewrequest@dnr.state.oh.us). Please allow at least 30 days for review and for the coordination letter to be returned.

Before any physical Construction Project is proposed for this tract, Landowner should submit a request for Environmental Review. Habitat does exist on this tract that may be suitable for some species listed.

**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 significant / historical / ecological sites are listed in the State Registry for this tract. Landowner did not know of any confirmed sites on this farm.



**Forest Health** – a general description of the health of the woodland: Most of the forest areas (Stands 4,5,6,7,8 & 9) are in good condition, considering the lack of management activity in recent years. The pasturing of these woodlots by the previous Owners has impacted the forest characteristics. The major health issue in these areas is the number of grapevines in the trees. EAB is having an impact on some of the forested areas of this tract (St 5). Non-native invasive plants, like Autumn Olive, Bush Honeysuckle, Privet, Ailanthus, Barberry, Japanese Vine Honeysuckle and Multi Flora Rose in particular, are well established in specific areas.

The only problematic insect pests or diseases noted during the woodland review was Emerald Ash Borer (EAB). Control of grapevines on selected crop trees (Oaks, Maples & Walnut) will guard those crop trees from the damage risks posed by this woody native vine. However, native grapevines are part of the forest ecosystem; keeping selected (few)vines may be considered a part of maintaining overall forest health.

Oak species are preferred food sources for the Gypsy moth. The good news is that after the initial wave of Gypsy moths showed up in Ohio, a fungus showed up that keeps these critters in pretty good check. The fungus is named Entomophaga miamaiga... "Em" for short. Still, it's a good idea to keep tabs on any oaks present in the forest to see if any egg masses start to show up in July-August - identified as a characteristic tan fuzzy oval mass that looks like Velcro. If you see egg masses, and can count more than 50 during a five minute walk around the oaks, then your trees are at risk of being partially or completely defoliated if the Spring is very dry and therefore not conducive to development of the Em fungus for natural control. There are options for control of Gypsy moth using aerial application of pesticides to the tree leaves, so that larvae ingesting such pesticides then die. One such pesticide is actually a "biocide" - the bacteria *Bacillus thuringiensis* (Bt).

Another woodland pest of great concern is the emerald ash borer (EAB), an invasive insect from Asia that only attacks ash trees. The larvae eat the living tissue of ash trees just underneath the bark. With a large enough infestation, this process essentially chokes off the flow of water and nutrients within the tree which leads to the tree's mortality. This insect can spread naturally from tree to tree, as well as artificially through the movement of ash material such as firewood.

You can reduce the risk of losses by gradually reducing the ash component of your woodlot. When doing a forest thinning or a crop tree release, if you have a choice between an ash and another desirable species, you may choose to cut the ash and let the other species grow. By gradually doing this ash reduction throughout your woods, you can avoid any serious impact on your woods if the emerald ash borer does eventually get there. (**Note –too late for this**)

The best thing you can do now is to stay informed. The following websites should be checked periodically for the most up to date information on the emerald ash borer:

<http://www.agri.ohio.gov/eab>

<http://www.emeraldashborer.info/>

<http://ashalert.osu.edu/>

<http://www.ohiodnr.com/forestry/health/eab.htm>



## 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 type's 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.*



**Forests of Recognized Importance** –Globally, regionally & nationally significant large forest landscape areas of exceptional ecological, social, cultural or biological values

This forested tract does not contain any attributes that could contribute to what would be considered a unique landscape. Review of maps of the area and records did not reveal any indication of this tract being in a unique landscape classification. 3/5/2018

- Social or cultural values are aspects of a forest that are critical to the surrounding community's identity. They can range from significant historical features (such as sacred sites or burial grounds) to the forest's role within the community—for example, whether local residents have traditionally depended on the forest for berries, firewood, or other products.
- Biodiversity values are critical to preserving local flora and fauna. Such values could include rare ecosystems or habitats, or unusual communities of plant or animal species. Keep in mind that these ecosystems and species need not be on state or federal Threatened or Endangered Species lists—they may just be considered rare regionally or locally.
- Environmental values can benefit the whole community. Some examples are forests whose presence helps protect local watersheds or prevent erosion in vulnerable areas.

When forestry professionals and other experts evaluate a forest as a potential Forest of Recognized Importance, they look at the entire landscape—not just a single stand of trees—and consider all of these values. Places that combine and contain these features are rare, so it's especially important to protect them.

There's another important point to keep in mind. Most Forests of Recognized Importance in the U.S. that are globally, nationally or regionally significant have already been identified and protected by state or federal government or have been put under a conservation easement by an environmental nonprofit organization. So, you're more likely to be near a Forest of Recognized Importance than to have one. But even if that's the case, there are still steps you can take in your own woods to help protect that Forest of Recognized Importance.

So, given this Standard for the Tree Farm program, you do not have any FORI on your property, but your property is still vital to protecting the water quality of Ohio.

**Best Management Practices** – maintaining the integrity and productivity of woodland sites:

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.

There are not any real issues with any of the trails and roads on this tract. There is a very limited number of mowed paths. One is access to an old oil/gas well.

**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, mushrooms and maple syrup are more examples of other beneficial forest resources.

**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).

Fire will not be used as a management tool on this tract.

**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 forest 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.



## Addendums

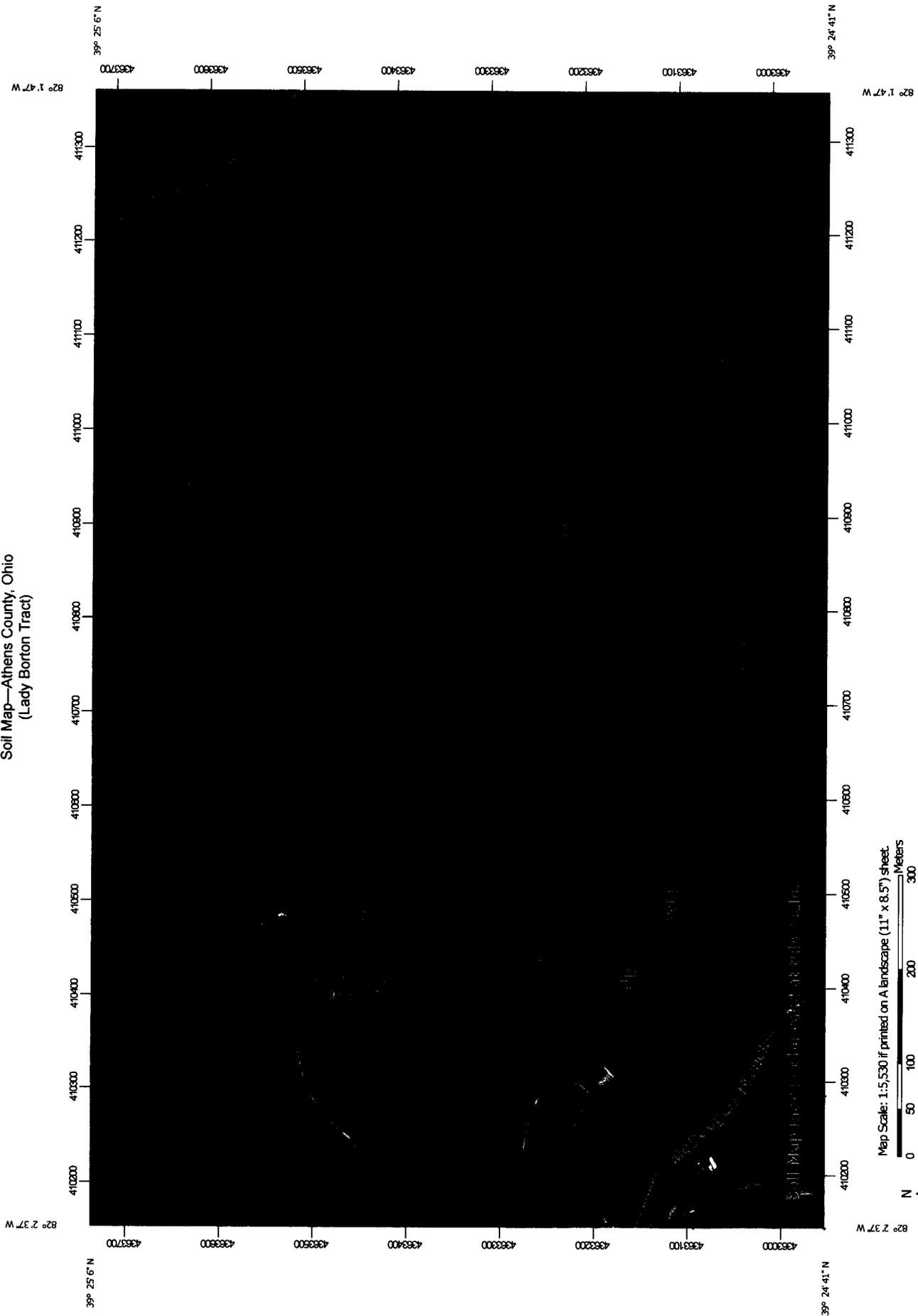
- Soils Report with - Soil Map and Map Unit Description
- Forest Productivity (Site Index)

### **Landowner Plan packet also contains:**

- Forestry Terms
- Autumn Olive Fact Sheet
- Ailanthus Fact Sheet
- Bush Honeysuckle Fact Sheet
- Barberry Fact Sheet
- Privet Fact Sheet
- How to cut grapevines



Soil Map—Athens County, Ohio  
(Lady Borton Tract)



Map Scale: 1:5,530 if printed on A landscape (11" x 8.5") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 17N WGS84



Web Soil Survey  
National Cooperative Soil Survey

## MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

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

Source of Map: Natural Resources Conservation Service  
Web Soil Survey URL:  
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

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 19, Oct 13, 2017

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Apr 5, 2012—Mar 26, 2017

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 LEGEND

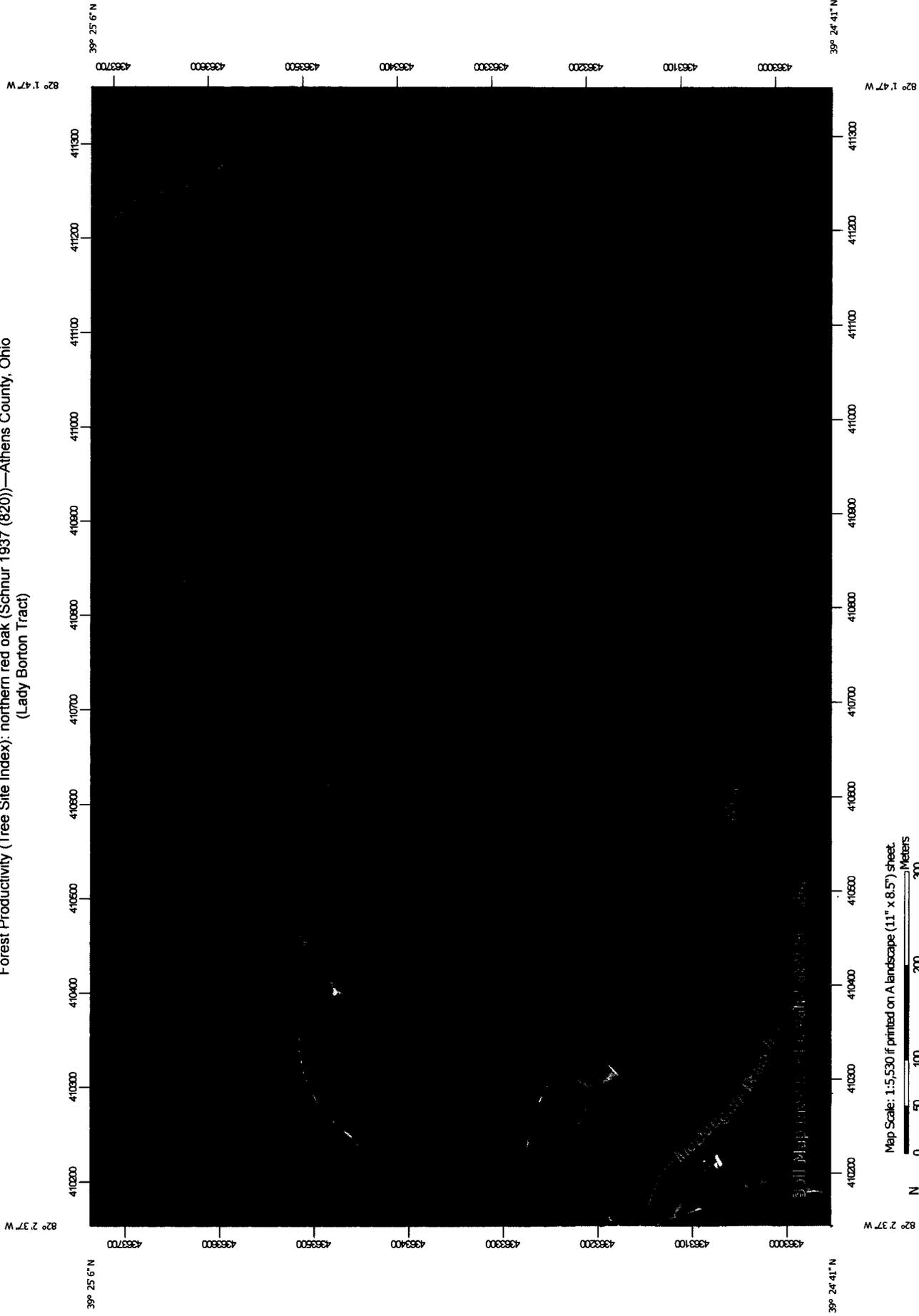
- |  |                        |                       |                       |
|--|------------------------|-----------------------|-----------------------|
|  | Area of Interest (AOI) |                       | Soil Area             |
|  | Soils                  |                       | Stony Spot            |
|  | Soil Map Unit Polygons |                       | Very Stony Spot       |
|  | Soil Map Unit Lines    |                       | Wet Spot              |
|  | Soil Map Unit Points   |                       | Other                 |
|  | Special Point Features |                       | Special Line Features |
|  | Blowout                |                       |                       |
|  | Borrow Pit             | <b>Water Features</b> |                       |
|  | Clay Spot              |                       | Streams and Canals    |
|  | Closed Depression      | <b>Transportation</b> |                       |
|  | Gravel Pit             |                       | Rails                 |
|  | Gravelly Spot          |                       | Interstate Highways   |
|  | Landfill               |                       | US Routes             |
|  | Lava Flow              |                       | Major Roads           |
|  | Marsh or swamp         |                       | Local Roads           |
|  | Mine or Quarry         | <b>Background</b>     |                       |
|  | Miscellaneous Water    |                       | Aerial Photography    |
|  | Perennial Water        |                       |                       |
|  | Rock Outcrop           |                       |                       |
|  | Saline Spot            |                       |                       |
|  | Sandy Spot             |                       |                       |
|  | Severely Eroded Spot   |                       |                       |
|  | Sinkhole               |                       |                       |
|  | Slide or Slip          |                       |                       |
|  | Sodic Spot             |                       |                       |

## Map Unit Legend

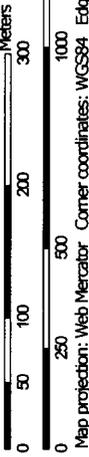
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
EbF	Elba-Brookside-Berks complex, 40 to 70 percent slopes	17.5	17.4%
GuD	Guernsey-Upshur complex, 15 to 25 percent slopes	0.3	0.3%
StD	Steinsburg sandy loam, 15 to 25 percent slopes	3.6	3.6%
UpC	Upshur silty clay loam, 8 to 15 percent slopes	3.7	3.7%
UsD	Upshur-Elba silty clay loams, 15 to 25 percent slopes	2.8	2.8%
VbD	Vandalia-Brookside complex, 15 to 25 percent slopes	61.0	60.4%
WhF	Westmoreland-Guernsey silt loams, 40 to 70 percent slopes	3.1	3.1%
WmE	Westmoreland-Upshur complex, 25 to 40 percent slopes	8.9	8.8%
WtC	Woodsfield silt loam, 8 to 15 percent slopes	0.1	0.1%
<b>Totals for Area of Interest</b>		<b>101.0</b>	<b>100.0%</b>



Forest Productivity (Tree Site Index): northern red oak (Schnur 1937 (820))—Athens County, Ohio  
(Lady Borton Tract)



Map Scale: 1:5,330 if printed on A landscape (11" x 8.5") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 17N WGS84

## MAP LEGEND

<b>Area of Interest (AOI)</b>	<b>Transportation</b>
Area of Interest (AOI)	+++
	Rails
<b>Soils</b>	Interstate Highways
<b>Soil Rating Polygons</b>	US Routes
<= 66	Major Roads
> 66 and <= 68	Local Roads
> 68 and <= 70	
> 70 and <= 78	<b>Background</b>
> 78 and <= 81	Aerial Photography
Not rated or not available	
<b>Soil Rating Lines</b>	
<= 66	
> 66 and <= 68	
> 68 and <= 70	
> 70 and <= 78	
> 78 and <= 81	
Not rated or not available	
<b>Soil Rating Points</b>	
<= 66	
> 66 and <= 68	
> 68 and <= 70	
> 70 and <= 78	
> 78 and <= 81	
Not rated or not available	
<b>Water Features</b>	
	Streams and Canals

## MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

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

Source of Map: Natural Resources Conservation Service  
Web Soil Survey URL:  
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

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 19, Oct 13, 2017

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Apr 5, 2012—Mar 26, 2017

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))

Map unit symbol	Map unit name	Rating (feet)	Acres in AOI	Percent of AOI
EbF	Elba-Brookside-Berks complex, 40 to 70 percent slopes	66	17.5	17.4%
GuD	Guernsey-Upshur complex, 15 to 25 percent slopes	78	0.3	0.3%
StD	Steinsburg sandy loam, 15 to 25 percent slopes		3.6	3.6%
UpC	Upshur silty clay loam, 8 to 15 percent slopes	65	3.7	3.7%
UsD	Upshur-Elba silty clay loams, 15 to 25 percent slopes	70	2.8	2.8%
VbD	Vandalia-Brookside complex, 15 to 25 percent slopes	77	61.0	60.4%
WhF	Westmoreland-Guernsey silt loams, 40 to 70 percent slopes	81	3.1	3.1%
WmE	Westmoreland-Upshur complex, 25 to 40 percent slopes	81	8.9	8.8%
WtC	Woodsfield silt loam, 8 to 15 percent slopes	68	0.1	0.1%
<b>Totals for Area of Interest</b>			<b>101.0</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/yr</i>	
EbF—Elba-Brookside-Berks complex, 40 to 70 percent slopes				
Elba	Black cherry	—	—	Austrian pine, Green ash, Pin oak, Red maple, Tuliptree
	Northern red oak	66	43.00	
	Red maple	—	—	
	Slippery elm	—	—	
	Tuliptree	76	57.00	
	White ash	—	—	
	White oak	—	—	
Berks	Black oak	70	57.00	Eastern white pine, Red pine, Tuliptree, Virginia pine, White ash
	Northern red oak	70	57.00	
	Virginia pine	70	114.00	
Brookside	Black cherry	—	—	Eastern white pine, Northern red oak, Red pine, Tuliptree, White ash, White oak
	Black walnut	—	—	
	Northern red oak	86	72.00	
	Sugar maple	—	—	
	Tuliptree	96	100.00	
	White ash	—	—	
	White oak	—	—	
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	57.00	
	Sugar maple	—	—	
	Tuliptree	95	100.00	
	White ash	—	—	
	White oak	—	—	
Upshur	Eastern white pine	90	172.00	Eastern white pine, Tuliptree, Virginia pine, White ash
	Northern red oak	70	57.00	
	Tuliptree	90	86.00	
	Virginia pine	70	114.00	

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/yr</i>	
StD—Steinsburg sandy loam, 15 to 25 percent slopes				
Steinsburg	Northern red oak	—	—	Black cherry, Eastern white pine, Red pine, Tuliptree, White ash
	Tuliptree	—	—	
	Virginia pine	70	—	
UpC—Upshur silty clay loam, 8 to 15 percent slopes				
Upshur	Eastern white pine	80	143.00	Austrian pine, Eastern white pine, Tuliptree, Virginia pine
	Northern red oak	65	43.00	
	Tuliptree	80	72.00	
	Virginia pine	66	100.00	
UsD—Upshur-Elba silty clay loams, 15 to 25 percent slopes				
Upshur	Eastern white pine	90	172.00	Austrian pine, Eastern white pine, Tuliptree, Virginia pine
	Northern red oak	70	57.00	
	Tuliptree	90	86.00	
	Virginia pine	70	114.00	
Elba	Black cherry	—	—	Austrian pine, Green ash, Pin oak, Red maple, Tuliptree
	Northern red oak	66	43.00	
	Red maple	—	—	
	Slippery elm	—	—	
	Tuliptree	76	57.00	
	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/yr</i>	
VbD—Vandalia-Brookside complex, 15 to 25 percent slopes				
Vandalia	Northern red oak	77	57.00	Austrian pine, Eastern white pine, Tuliptree, Virginia pine
	Tuliptree	90	86.00	
	Virginia pine	80	114.00	
Brookside	Black cherry	—	—	Eastern white pine, Northern red oak, Red pine, Tuliptree, White ash, White oak
	Black walnut	—	—	
	Northern red oak	86	72.00	
	Sugar maple	—	—	
	Tuliptree	96	100.00	
	White ash	—	—	
	White oak	—	—	
WhF—Westmoreland-Guernsey silt loams, 40 to 70 percent slopes				
Westmoreland	Eastern white pine	75	143.00	Eastern white pine, Northern red oak, Red pine, Tuliptree, White ash, White oak
	Northern red oak	81	57.00	
	Tuliptree	90	86.00	
Guernsey	Black cherry	—	—	Eastern white pine, Northern red oak, Red pine, Tuliptree, White ash, White oak
	Black walnut	—	—	
	Northern red oak	78	57.00	
	Sugar maple	—	—	
	Tuliptree	95	100.00	
	White ash	—	—	
	White oak	—	—	
WmE—Westmoreland-Upshur complex, 25 to 40 percent slopes				
Westmoreland	Eastern white pine	75	143.00	Eastern white pine, Northern red oak, Red pine, Tuliptree, White ash, White oak
	Northern red oak	81	57.00	
	Tuliptree	90	86.00	
Upshur	Eastern white pine	90	172.00	Austrian pine, Eastern white pine, Tuliptree, Virginia pine
	Northern red oak	70	57.00	
	Tuliptree	90	86.00	
	Virginia pine	70	114.00	

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/yr</i>	
WtC—Woodsfield silt loam, 8 to 15 percent slopes				
Woodsfield	Black oak	75	—	Black oak, Northern red oak, Sugar maple, White oak
	Northern red oak	68	—	
	Sugar maple	80	—	
	White oak	76	58.00	

### Data Source Information

Soil Survey Area: Athens County, Ohio  
 Survey Area Data: Version 19, Oct 13, 2017

