Woodland Stewardship Management Plan

Owner's Information:

Case Number: _____

Owners: Charles E. Hawk Lucille W. Hawk

Signed: _____ Signed: Lucille W. Hawk

Date: August ____, 2021

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

740-541-4647 mobile
fatlabtreefarm@gmail.com

Date: August 2nd, 2021
Field Inspection Date

This plan is valid for the period beginning August 14, 2021 and ending August 13, 2031.

Plan Status:New

Inventory Method: On Site Property Review

NRCS Representative Signature: Date:

Woodland Stewardship Management Plan

Owner	Charles & Lucille Hawk		
Address	4170 Angle Ridge Rd		
	Athens, Ohio 45701		
Phone	740-592-3882	Case Number	
Cell		Email Address	
County	Athens	Township/Village/City:	Lodi Twp. Sections 28, 29 & 35
Parcel(s):	J010010047200, J010010048900, J010010049000, J010010049100, J010010049200, J010010050900		
Location:	Tract is located at junction of Angle Ridge Road and Co. Rd 33A		

Woodland Stewardship Acreage: 68.18

Non-woodland Stewardship Acreage*: 46.18

Total Property Acres 114.36

* Non-woodland acres for which stewardship recommendations are made. **Stands: 1,2,8,12 & 13**

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: 39.25477 Longitude: -82.05405

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.

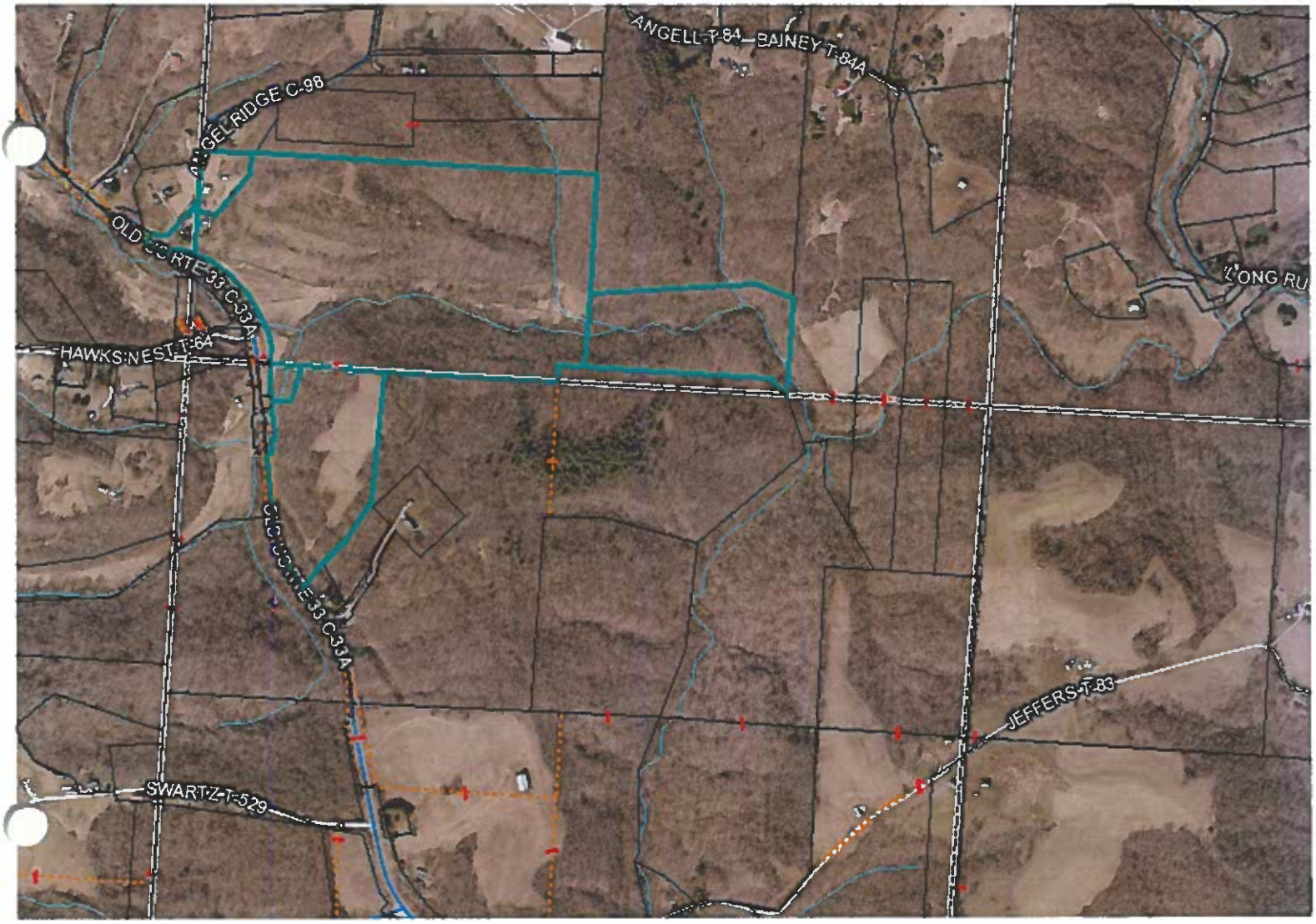
2. Improve the forested habitat to increase deer and other game animal populations.

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.

Mr. & Mrs. Hawk have resided on this farm since 1937. This was an active farm with livestock (sheep) and hay production. The last timber harvest on this tract was in the early 1970's. This was s light selection harvest. In 2003 the Hawk's entered into a Conservation Easement with the Ohio Dept. of Transportation for EPA Stream Mitigation. This perpetual easement included the portions of 2 intermittent stream and the Middle Fork of the Shade River on the Hawk farm.


ANGELL T-84
BAINEY T-84A
ANGEL RIDGE C-98
OLD RTE 33 C-33A
HAWKS NEST T-64
OLD RTE 33 C-33A
JEFFERS T-83
SWART Z T-529

Search by Owner Name * HAWK CHARLES
Type in: LastName FirstName

Options Sort by: Parcel ID Ascending Results/page: 15 Search

* required

Data Current as of 30/Jun/2021

Results Click rows to view property details Displaying 1 - 11 of 11

	Parcel ID ▲	Owner Name	Parcel Address	Mailing Address	Legal	Last Sale	Price
☐	A010010076300	HAWK CHARLES W JR	HAWKS RD	1453 MCDONALD HILL RD FRANKFORT OH 45628	14-09-00 SEC 18 FRA 68	N/A	
☐	A010010076400	HAWK CHARLES JR	11277 HAWKS RD	1453 MCDONALD HILL RD FRANKFORT OH 45628	14-09-00 SEC 18 FRA 68	N/A	
☑	J010010047200	HAWK CHARLES E & LUCILLE...	OLD U S 33	4170 ANGEL RIDGE RD ATHENS OH 45701	13-04-00 SEC 29 16.6...	N/A	
☑	J010010048900	HAWK CHARLES ET AL	OLD U S 33 HWY	4170 ANGEL RIDGE RD ATHENS OH 45701	13-04-00 SEC 29 73.0...	N/A	
☑	J010010049000	HAWK CHARLES E LUCY W	4230 ANGEL RIDGE RD	4170 ANGEL RIDGE RD ATHENS OH 45701	SEC 29 JS 2.320A	N/A	
☑	J010010049100	HAWK CHARLES ET AL	4170 ANGEL RIDGE RD	4170 ANGEL RIDGE RD ATHENS OH 45701	13-04-00 SEC 35 .750...	N/A	
☑	J010010049200	HAWK CHARLES ET AL	OLD U S 33	4170 ANGEL RIDGE RD ATHENS OH 45701	13-04-00 SEC 28 FRA 35-	N/A	
☑	J010010050900	HAWK CHARLES E & LUCILLE...	OLD U S 33	4170 ANGEL RIDGE RD ATHENS OH 45701	13-04-00 SEC 28 FRA 35	N/A	
☐	P010090101800	HAWK CHARLES W	S R 691	1453 MCDONALD HILL RD FRANKFORT OH 45628	15-12-00 .900AC	N/A	
☐	P010090102000	HAWK CHARLES W	S R 691	1453 MCDONALD HILL RD FRANKFORT OH 45628	15-12-00 IL 47	N/A	
☐	P010090102100	HAWK CHARLES W JR	S R 691	1453 MCDONALD HILL RD FRANKFORT OH 45628	15-12-00 IL 46 S PART	N/A	

Selection Manager
Select page all
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Search Manager
Save New List
View List - Map
Reports
Tax Bill OH
Residential PRC - OH
Commercial PRC- OH
Go

Printable Version

Results Page: [1]

Athens County Auditor
15 S. Court Street, Room 330 Athens, OH 45701-2896
Mon - Fri: 8:00am - 4:00pm
T: 740-592-3223 | Privacy Statement | Terms of Use

PARID: J010010047200
HAWK CHARLES E & LUCILLE W **OLD U S 33**

Parcel

Address	OLD U S 33
Unit	
Class	A - AGRICULTURAL
Tax Roll	RP_OH
Land Use Code	100 - A - AGRICULTURAL VACANT LAND
Neighborhood	00009000 - J01
Total Acres	16.6
Taxing District	J01
District Name	LODI TOWNSHIP
Gross Tax Rate	73.46
Effective Tax Rate	

Owner

Tax Year	2020
Owner	HAWK CHARLES E & LUCILLE W

Tax Mailing Name and Address

Mailing Name 1	HAWK CHARLES E
Mailing Name 2	& LUCILLE W
Address 1	4170 ANGEL RIDGE RD
Address 2	
Address 3	ATHENS OH 45701
Mortage Company	
Mortage Company Name	
Treas Code	

Legal

Legal Desc 1	13-04-00 SEC 29 16.600A
Legal Desc 2	
Legal Desc 3	
Legal Acres	16.6

Homestead Credits

Homestead Exemption	NO
Owner Occupancy Reduction	NO

PARID: J010010048900
HAWK CHARLES ET AL

OLD U S 33 HWY

Parcel

Address	OLD U S 33 HWY
Unit	
Class	A - AGRICULTURAL
Tax Roll	RP_OH
Land Use Code	101 - A - CASH GRAIN OR GENERAL FARM
Neighborhood	00009000 - J01
Total Acres	73.08
Taxing District	J01
District Name	LODI TOWNSHIP
Gross Tax Rate	73.46
Effective Tax Rate	

Owner

Tax Year	2020
Owner	HAWK CHARLES ET AL

Tax Mailing Name and Address

Mailing Name 1	HAWK CHARLES E
Mailing Name 2	& LUCILLE W
Address 1	4170 ANGEL RIDGE RD
Address 2	
Address 3	ATHENS OH 45701
Mortage Company	
Mortage Company Name	
Treas Code	

Legal

Legal Desc 1	13-04-00 SEC 29 73.080A
Legal Desc 2	
Legal Desc 3	
Legal Acres	73.08

Homestead Credits

Homestead Exemption	NO
Owner Occupancy Reduction	NO

PARID: J010010049000
HAWK CHARLES E LUCY W **4230 ANGEL RIDGE RD**

Parcel

Address	4230 ANGEL RIDGE RD
Unit	
Class	A - AGRICULTURAL
Tax Roll	RP_OH
Land Use Code	101 - A - CASH GRAIN OR GENERAL FARM
Neighborhood	00009000 - J01
Total Acres	2.32
Taxing District	J01
District Name	LODI TOWNSHIP
Gross Tax Rate	73.46
Effective Tax Rate	

Owner

Tax Year	2020
Owner	HAWK CHARLES E LUCY W

Tax Mailing Name and Address

Mailing Name 1	HAWK CHARLES E
Mailing Name 2	& LUCILLE W
Address 1	4170 ANGEL RIDGE RD
Address 2	
Address 3	ATHENS OH 45701
Mortage Company	
Mortage Company Name	
Treas Code	

Legal

Legal Desc 1	SEC 29 JS 2.320A
Legal Desc 2	
Legal Desc 3	
Legal Acres	2.32

Homestead Credits

Homestead Exemption	NO
Owner Occupancy Reduction	NO

PARID: J010010049200
HAWK CHARLES ET AL **OLD U S 33**

Parcel

Address	OLD U S 33
Unit	
Class	A - AGRICULTURAL
Tax Roll	RP_OH
Land Use Code	100 - A - AGRICULTURAL VACANT LAND
Neighborhood	00009000 - J01
Total Acres	1.06
Taxing District	J01
District Name	LODI TOWNSHIP
Gross Tax Rate	73.46
Effective Tax Rate	

Owner

Tax Year	2020
Owner	HAWK CHARLES ET AL

Tax Mailing Name and Address

Mailing Name 1	HAWK CHARLES E
Mailing Name 2	& LUCILLE W
Address 1	4170 ANGEL RIDGE RD
Address 2	
Address 3	ATHENS OH 45701
Mortage Company	
Mortage Company Name	
Treas Code	

Legal

Legal Desc 1	13-04-00 SEC 28 FRA 35-
Legal Desc 2	1.060A
Legal Desc 3	
Legal Acres	1.06

Homestead Credits

Homestead Exemption	NO
Owner Occupancy Reduction	NO

PARID: J010010050900
HAWK CHARLES E & LUCILLE W **OLD U S 33**

Parcel

Address	OLD U S 33
Unit	
Class	A - AGRICULTURAL
Tax Roll	RP_OH
Land Use Code	100 - A - AGRICULTURAL VACANT LAND
Neighborhood	00009000 - J01
Total Acres	20.55
Taxing District	J01
District Name	LODI TOWNSHIP
Gross Tax Rate	73.46
Effective Tax Rate	

Owner

Tax Year	2020
Owner	HAWK CHARLES E & LUCILLE W

Tax Mailing Name and Address

Mailing Name 1	HAWK CHARLES E
Mailing Name 2	& LUCILLE W
Address 1	4170 ANGEL RIDGE RD
Address 2	
Address 3	ATHENS OH 45701
Mortage Company	
Mortage Company Name	
Treas Code	

Legal

Legal Desc 1	13-04-00 SEC 28 FRA 35
Legal Desc 2	20.550 AC
Legal Desc 3	
Legal Acres	20.55

Homestead Credits

Homestead Exemption	NO
Owner Occupancy Reduction	NO

PARID: J010010049100
HAWK CHARLES ET AL **4170 ANGEL RIDGE RD**

Parcel

Address	4170 ANGEL RIDGE RD
Unit	
Class	A - AGRICULTURAL
Tax Roll	RP_OH
Land Use Code	101 - A - CASH GRAIN OR GENERAL FARM
Neighborhood	00009000 - J01
Total Acres	.75
Taxing District	J01
District Name	LODI TOWNSHIP
Gross Tax Rate	73.46
Effective Tax Rate	

Owner

Tax Year	2020
Owner	HAWK CHARLES ET AL

Tax Mailing Name and Address

Mailing Name 1	HAWK CHARLES E
Mailing Name 2	& LUCILLE W
Address 1	4170 ANGEL RIDGE RD
Address 2	
Address 3	ATHENS OH 45701
Mortage Company	
Mortage Company Name	
Treas Code	

Legal

Legal Desc 1	13-04-00 SEC 35 .750AC
Legal Desc 2	
Legal Desc 3	
Legal Acres	.75

Homestead Credits

Homestead Exemption	YES
Owner Occupancy Reduction	YES

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

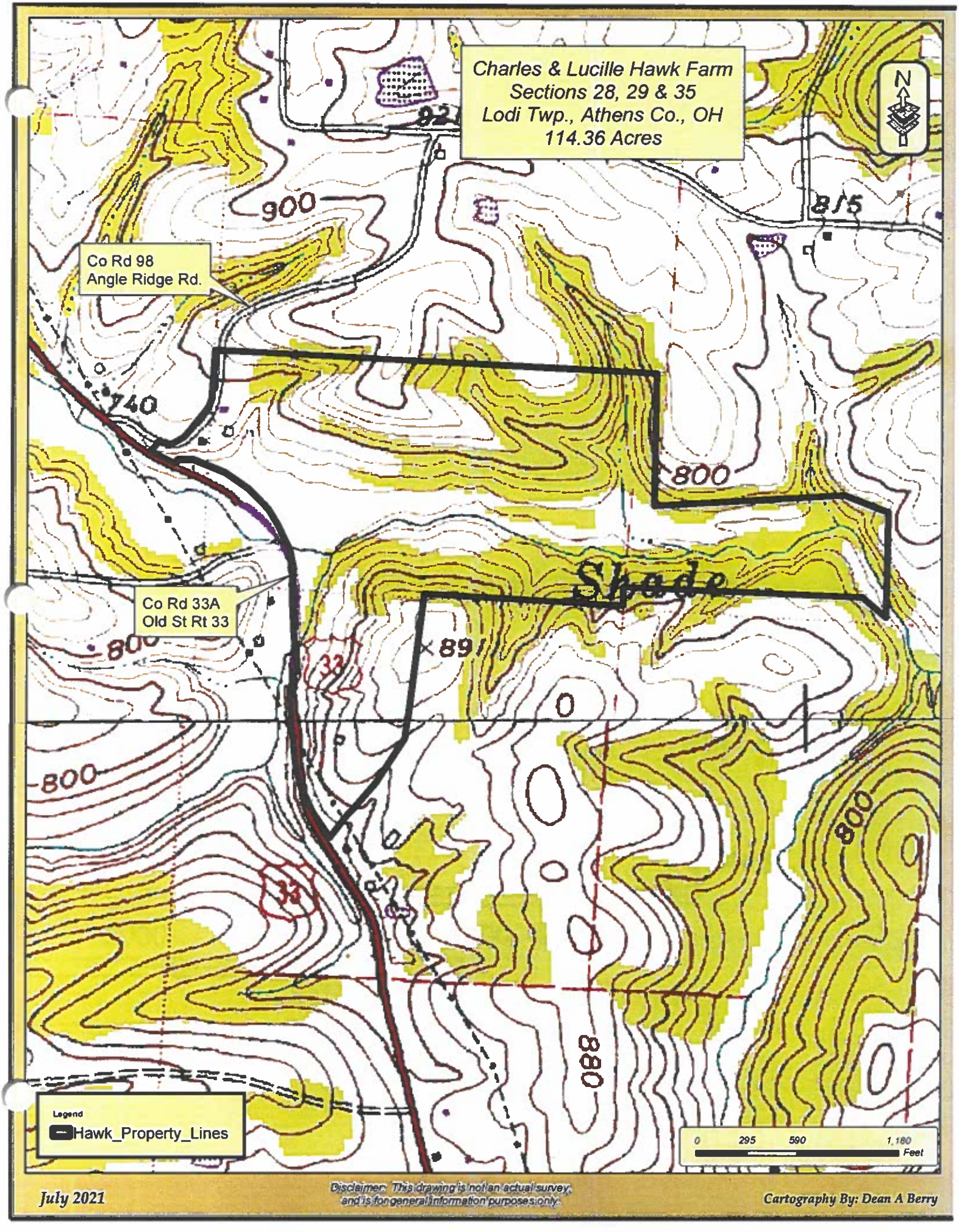
Forestry Terms – Forestry Terminology for Landowners, Professional foresters, and others:

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. 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.


Charles & Lucille Hawk Farm
Sections 28, 29 & 35
Lodi Twp., Athens Co., OH
114.36 Acres
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Co Rd 33A
Old St Rt 33
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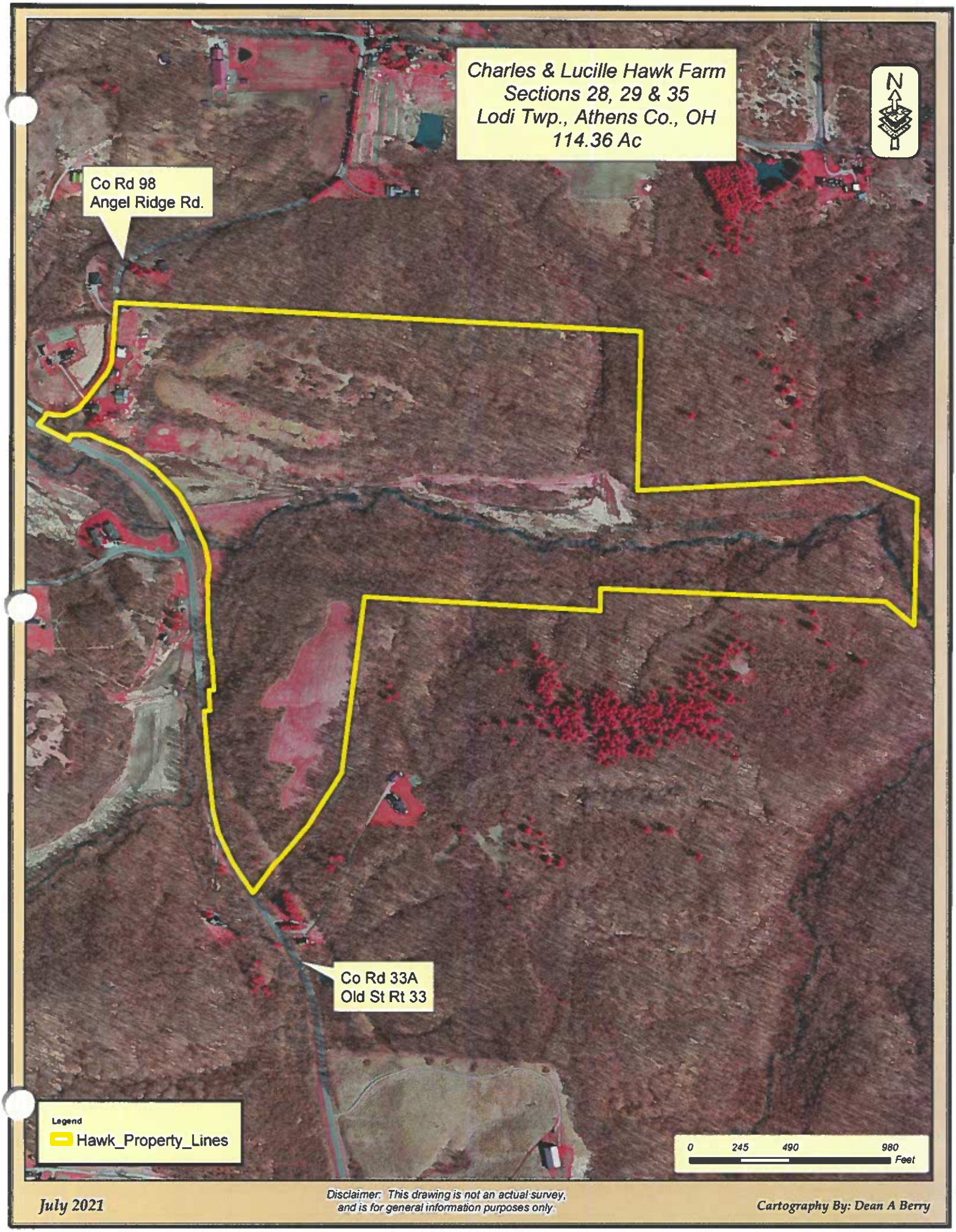
July 2021
Disclaimer: This drawing is not an actual survey, and is for general information purposes only.
Cartography By: Dean A Berry



July 2021

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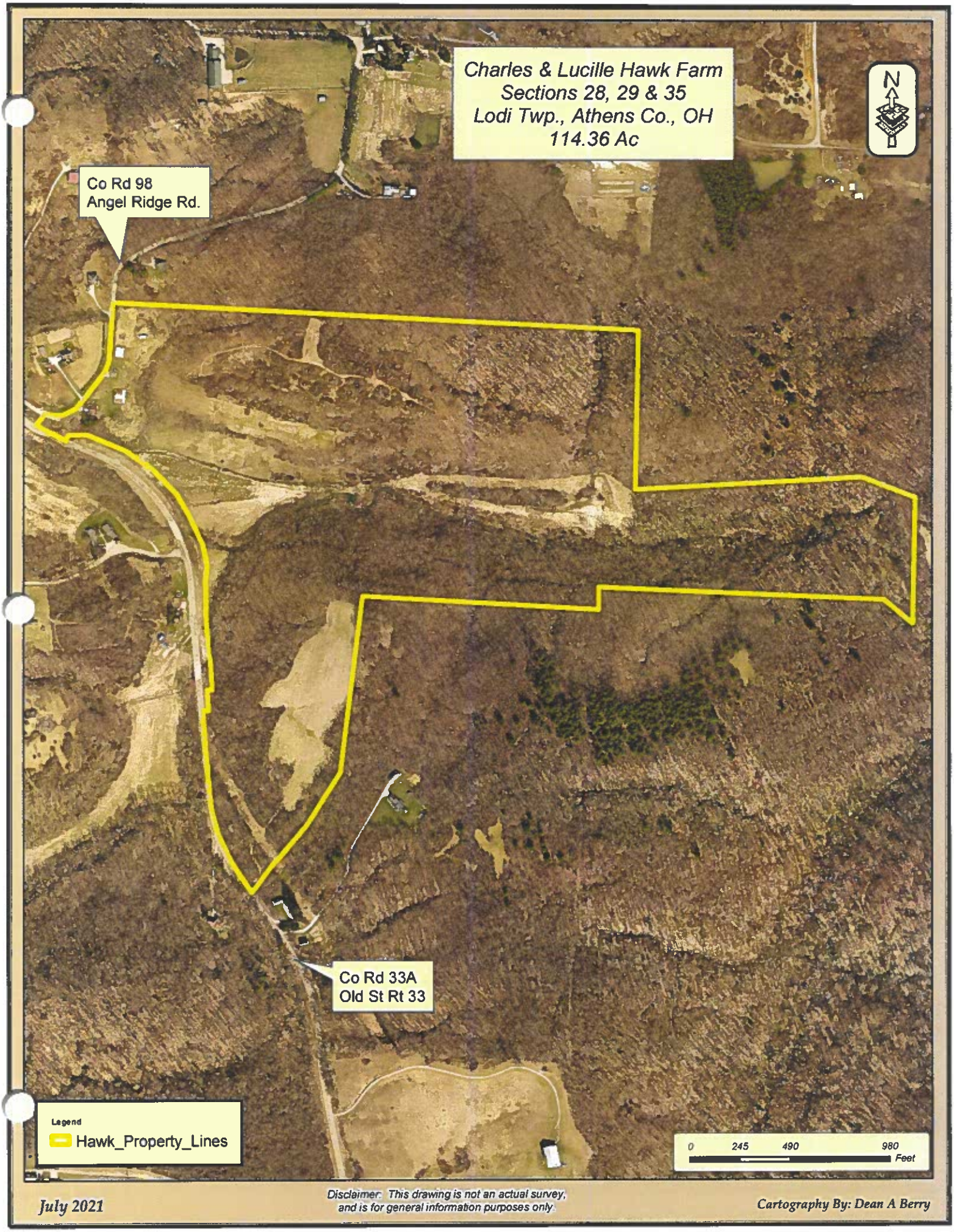
Cartography By: Dean A Berry


Charles & Lucille Hawk Farm
Sections 28, 29 & 35
Lodi Twp., Athens Co., OH
114.36 Ac
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Co Rd 98
Angel Ridge Rd.
Co Rd 33A
Old St Rt 33
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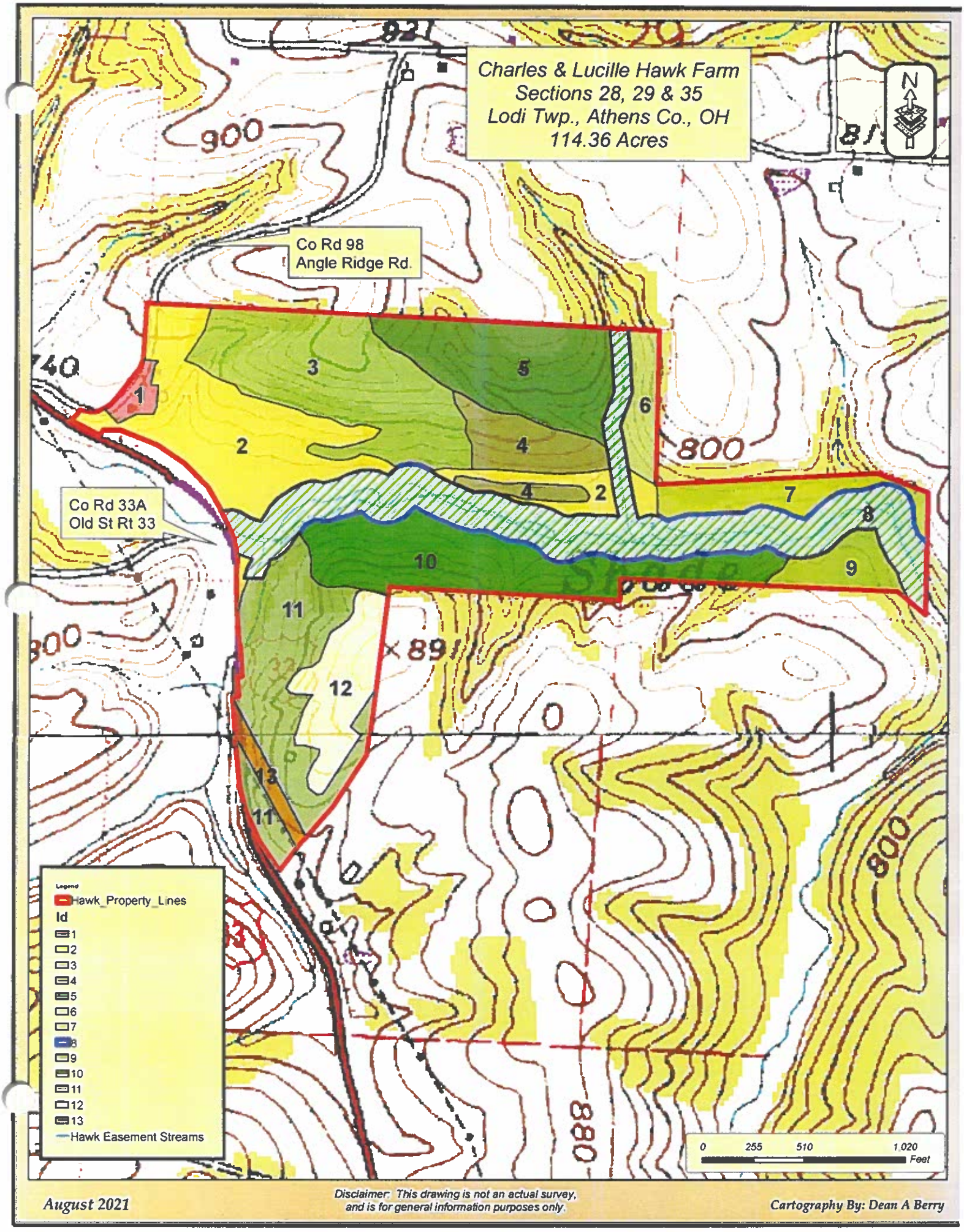
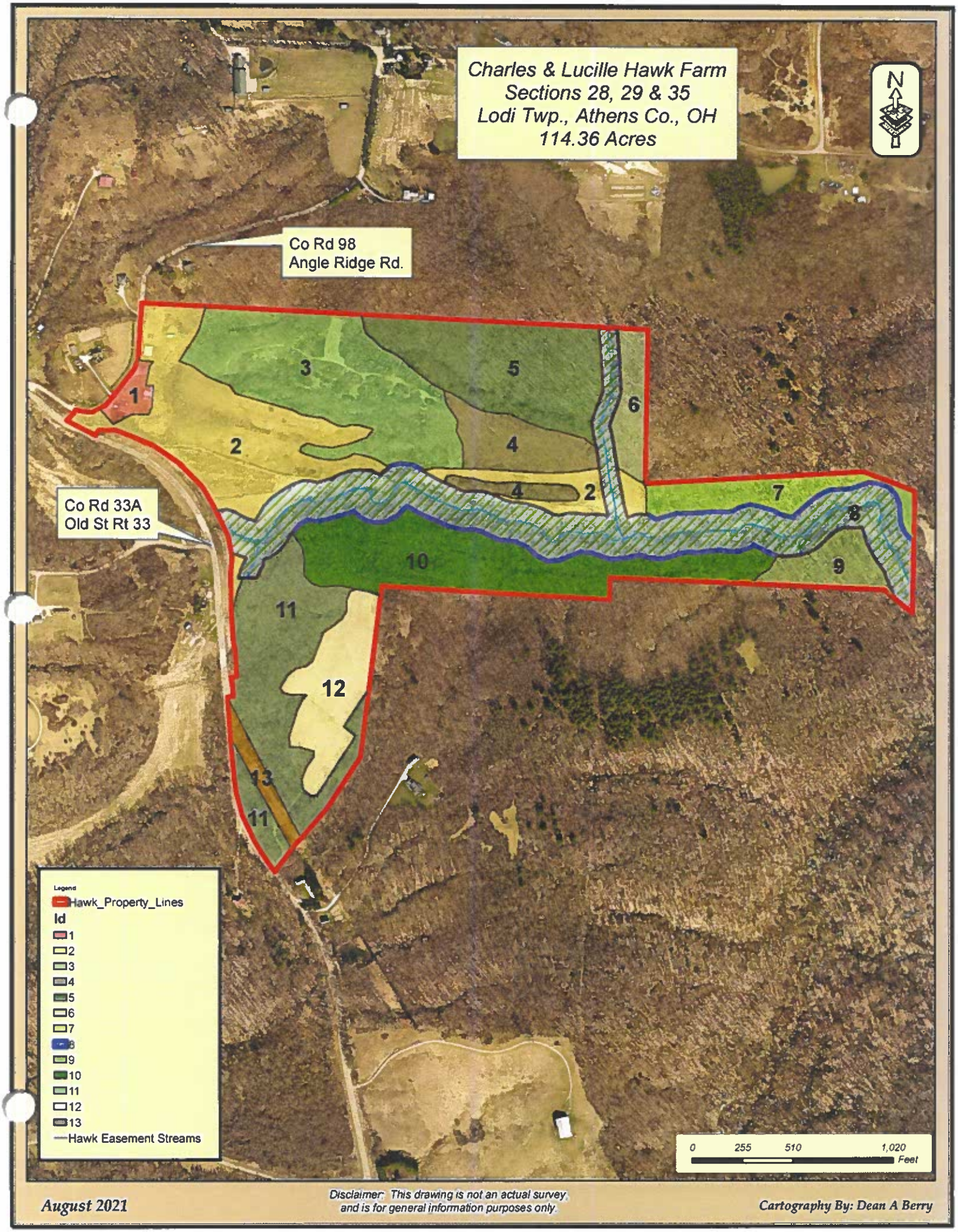
July 2021
Disclaimer: This drawing is not an actual survey, and is for general information purposes only
Cartography By: Dean A Berry



August 2021

Disclaimer: This drawing is not an actual survey, and is for general information purposes only.

Cartography By: Dean A Berry


Charles & Lucille Hawk Farm
Sections 28, 29 & 35
Lodi Twp., Athens Co., OH
114.36 Acres
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Angle Ridge Rd.
Co Rd 33A
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Feet
August 2021
Disclaimer: This drawing is not an actual survey and is for general information purposes only.
Cartography By: Dean A Berry

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 and grapevines along Stand edges (addressed in adjacent stand descriptions).

Stand Description: This stand covers the residential area. The farmhouse, rental 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: Yard area mowed. Some grapevines cut from trees close to the house.

Management Recommendations:
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 - 16.28 acres Non-Forest Stewardship Area – Agricultural Area

Dominant Species: grasses & broadleaf plants, patches and fence rows with a variety of tree species: Black Walnut, Oak spp., Hickory spp., Sugar Maple, Beech, Black Cherry, Sycamore, Black Willow, Yellow Buckeye, Dogwood, Red Maple

Forest Type or Dominant Vegetation: N/A

Stand Diameter or Size Class: N/A

Stocking Level: N/A

Stand History: Farmland

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 field area close to the house and up the hollow along the stream (outside of the conservation easement area). Some the low-lying grass areas are designated wetland areas. Limited mowing is done in this area. This area is slowly "brushing up" and is reverting back to forest lands. A recommendation would be to rotationally mow this area or plant to trees rather that just let the Autumn Olive take over.

Past management activities completed in this stand: some mowing, clearing brush from field area

Management Recommendations:
Eradicate any non-native invasive species found as time permits.
Possibly plant un-mowed areas with trees suitable for the site could be an option.

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 - 15.86 acres

Dominant Species: Sassafras, Tulip Poplar, Red Maple, Dogwood, Black Cherry, Spice Bush, Red Bud, Sycamore, Black Locust, Hawthorn, Black Walnut, Hickory spp., Aspen, Ash(seedlings), scattered Oak spp., Am Beech (hollow area)

Forest Type or Dominant Vegetation: Upland Central Hardwoods

Stand Diameter or Size Class: Seedling/Sapling scattered larger trees in ravines & steep slope sections

Stocking Level: Fully stocked in most areas with desirable species

Stand History: Old-Field Reversion

Topography: Gently sloping side slope areas with several steep slope sections and a rocky ravine area near the barns.

Invasive plants or insects impacting this stand: scattered grapevines in stand, Autumn Olive & Multi Flora Rose, Japanese Honeysuckle

Stand Description: This stand had been open pastureland and once the sheep were removed has reverted back into forestland –late successional stage of development. Parts of this area is heavy briars and brush that is difficult to traverse except on the established trails. Overall, Autumn Olive is present throughout the entire area. Stocking levels of trees vary greatly, with some small openings of grass only. Included in this area is a wooded ravine of sawlog sized trees and some steep slope sections also populated with larger trees. All this area was subject to pasturing but the topography limited access to some areas.

Past management activities completed in this stand: Property lines painted with blue 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

If a timber harvest is recommended: No, a commercial harvest is not needed in this 10-yr management period unless some of the large Oak trees in the ravine by the barn begin to die.

Comments: 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.

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 - 5.18 acres

Dominant Species: White Oak, Black Oak, Scarlet Oak, Sugar Maple, Hickory spp., Red Maple, Am. Beech, Black Locust, Yellow Buckeye, Am. Beech, Paw Paw

Forest Type or Dominant Vegetation: Upland Central Hardwoods

Stand Diameter or Size Class: Poletimber/Small sawtimber

Stocking Level: Fully stocked **and/or Basal Area:** **(ft2/acre)**

Stand History: Grazing

Topography: Gently sloping side slope and bottomland wooded area

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

Stand Description: This area covers the south facing side slope area located along the ridge in the center of this farm, and a narrow band of trees located near the easement area. Overall, low quality trees but they are important for mass production. Most of the large trees present on this slope are low quality or have defect. This entire stand was part of the pasture area.

Past management activities completed in this stand: trails constructed in this area.

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, rocky 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 adjacent 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 - 10.97 acres

Dominant Species: Red Oak spp., White Oak spp., Hard Maple, Hickory Spp., Black Cherry, Am. Beech, Yellow Buckeye, Yellow Poplar, some Paw Paw near stream drainage

Forest Type or Dominant Vegetation: Upland Central Hardwoods

Stand Diameter or Size Class: Small/Medium sawtimber

Stocking Level: Fully stocked

Stand History: Grazing in the past, light selection harvest in the early 1970's

Topography: Gently sloping

Invasive plants or insects impacting this stand: scattered grapevines and autumn olive found in understory (lower stream drainage area has the highest concentration of grapevines)

Stand Description: This area covers the hollow area located along the northern edge of this farm. Overall, most of the area is closed canopy with an open understory. Very few ferns or native forest plants present (past grazing indicator). Saplings in the understory are shade tolerant species. Trees appear to be healthy and have full leaf foliage in most of the crowns. Great mixture of oak species that provide valuable hard mast, acorns. The larger hollow Maple and Beech trees provide nesting & cavity dwelling animals/birds critical nesting structures. Large diameter Black Oak and Hickory trees found throughout stand. Nice patch of Poplar trees in the drainage area.

Past management activities completed in this stand: property lines located, and some fence posts painted blue

Management Recommendations:
Continue to mark property lines with paint, redo every 5 years or as needed
Cut the few scattered grapevines from "crop" trees in this area

If a timber harvest is recommended: No, not in this 10-year management period. Landowner will monitor forest health and may decide to remove some trees if they begin to show decline.

Comments: Not a lot to do in this stand at this time, once the grapevines are cut. This is a great woods, leave it alone and enjoy.

Desired Future Conditions: Maintain this area as a mature hardwood area.

Desired Forest Type or Dominant Vegetation: Upland Central Hardwoods

Desired Stand Structure: Uneven Aged

Woodland Stand Description and Management Recommendations

Stand # 6 - 2.6 acres

Dominant Species: White Oak, Black Oak, Scarlet Oak, Hard Maple, Hickory Spp., Am. Beech, Yellow Buckeye

Forest Type or Dominant Vegetation: Upland Central Hardwoods

Stand Diameter or Size Class: Small/Medium sawtimber

Stocking Level: Fully stocked

Stand History: Grazing in the past, light selection harvest in the early 1970's

Topography: Gently sloping

Invasive plants or insects impacting this stand: scattered autumn olive found in understory

Stand Description: This is a west facing wooded slope that has been pastured in the past. It appears this area was also selectively harvested in the 1970's. This area is similar to adjacent Stand 5 but does have more white oak in stand composition. Again, this area has a high composition of hickory trees in this stand. Upper slope area is rocky, moss/lichen covered with few understory plants. Lower slope area has some shade tolerant saplings present. Old logging road in this area.

Past management activities completed in this stand: property lines located, and some fence posts painted orange

Management Recommendations:
Continue to mark property lines with paint, redo every 5 years or as needed
Cut the few scattered autumn olive in this area

If a timber harvest is recommended: No, not in this 10-year management period. Landowner will monitor forest health and may decide to remove some trees if they begin to show decline.

Comments: Not a lot to do in this stand at this time, once the autumn olive infestation is reduced.

Desired Future Conditions: Maintain this area as a mature hardwood area.

Desired Forest Type or Dominant Vegetation: Upland Central Hardwoods

Desired Stand Structure: Uneven Aged

Woodland Stand Description and Management Recommendations

Stand # 7 - 4.35 acres

Dominant Species: Sugar Maple, Red Maple, Hickories, scattered Black Oak trees, lower slope also contains Tulip Poplar, Black Walnut & Spice Bush and Elm trees present

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 :** **(ft2/acre)**

Stand History: Grazing

Topography: Gently sloping side slope area

Invasive plants or insects impacting this stand: Autumn Olive along the edges of Stands 2 & 8. Grapevines found on slope area of this stand. EAB damage is evident.

Stand Description: This area encompasses the wooded slope along the northern boundary and the conservation easement area. The entire stand is stocked with maple and hickory trees. There is limited access into this area because of the property line and stream. This is a lower moist soil site has heavy understory of briars and spice bush that is difficult to walk through.

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

Management Recommendations:
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: This is a nasty area to walk through, great habitat for wildlife bedding/nesting.

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 - **21.7** acres Conservation Easement Riparian Area

Dominant Species: Black Walnut, Red Oak Spp., White Oak, Am. Beech, Sugar Maple, Red Maple, Yellow Buckeye, Black Cherry- bottomland areas of Black Willow, Sycamore, Box Elder, Elm

Forest Type or Dominant Vegetation: As Listed in Dominant Species

Stand Diameter or Size Class: All size classes

Stocking Level: Fully stocked, most areas with desirable species

Stand History: Other _Conservation Easement established 2003

Topography: Gently sloping stream drainages and steep side slope areas

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

Stand Description: This Stand was separated out in this Plan due to the importance of protecting the Conservation Easement area that was established on this farm in 2003. In brief, this is an non-developmental agreement that encompasses 100' on each side of the centerline of the Middle Fork of the Shade River and 50' on each side of the stream drainages for 2 intermittent streams that flow into the river. No trees are to be harvested from this area without prior consent of the ODOT Director. Portions of this area also encompass recognized Freshwater Emergent Wetland area. The wetland portions of this area are mainly Boxelder, American Elm, Cottonwood and some Black Walnut trees. The forested stream banks are a mixture of climax hardwood tree species.

Past management activities completed in this stand: property lines located and fenced before easement established.

Management Recommendations:
Follow Easement covenants.
Repaint the property lines every 5 years or when necessary to remain visible

Is a timber harvest recommended? No Not allowed in this area with out prior consent of the conservation easement owner (ODOT)

Comments: Exhibit "A" of the easement attached.

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: As Listed in Dominant Species

Desired Stand Structure: Uneven Aged

EXHIBIT A

This perpetual easement is being acquired pursuant to Section 5501.31 of the Ohio Revised Code, which authorizes the Director of Transportation of the State of Ohio [hereinafter "Director"] to acquire by purchase real property from a willing seller as required for the replacement, preservation, or conservation of any environmental resource if the replacement, preservation, or conservation is required by state or federal law.

The nature, character, and extent of the easement, estate, and interest in the real property of Grantors being conveyed to Grantee shall constitute and be a perpetual servitude upon the real property of Grantors, which real property is described in Exhibit A attached hereto [hereinafter "Real Property"]. Said easement, estate, interest, and servitude shall be those restrictions set out below, which are now and forever imposed upon the use of the Real Property lying within one hundred feet (100') of the bank of Shade River. To that end, and for the purpose of accomplishing the intent of the parties hereto, Grantors covenant on behalf of themselves, their heirs, successors and assigns, with the State of Ohio to do and refrain from doing, severally and collectively, upon the Real Property the various acts hereinafter mentioned. It is expressly understood and intended by Grantors that the doing and refraining from doing such various acts hereinafter mentioned upon the Easement Property shall be for the benefit of Grantee, the property of which is adjacent to or in the vicinity of the Easement Property.

The restrictions hereby imposed upon the use of the Easement Property of Grantors, and the acts which Grantors so covenant to do and refrain from doing upon said Easement Property are and shall be as follows:

1. The Easement Property shall be maintained in its natural state. As herein used, the term "natural state" means that no buildings, billboards or other structures of any kind, either temporary or permanent, shall be placed, erected, or suffered on the Easement Property, unless otherwise expressly provided hereunder.

2. The agricultural practice to harvest hay only shall be allowed on or in the Easement Property, provided that none of this is done within fifty feet (50') from the center of the river back. The hay may be grown and cut within the fifty foot (50') to one hundred foot (100') area **only.** Otherwise there will be no farming, or other animal husbandry, agricultural, or horticultural uses; nor shall there be any filling, excavating, or removing of top soil, sand, gravel, rock, minerals or other materials, nor any building of roads or changes in the topography of the land in any manner, except those that may be caused by the forces of nature.

3. The manners and methods of using any and all herbicides or pesticides shall be only those expressly approved and prescribed by Director.

4. No power transmission lines may be erected upon the Easement Property, nor shall any interest in the Easement Property be granted for such a purpose, without the express written consent of Director. It is Grantors' intent to convey and invest in Grantee an easement, estate, and interest in the Easement Property that is sufficient to prohibit the exercise of the power of eminent domain by any public utility company, or by any other private or public entity

or person. However, Grantors hereby expressly reserve their rights in the Easement Property to be able to maintain and repair existing telephone, electric, water, wells, or other utility lines or mains needed to provide for the needs of Grantors, their successors or assigns; the area needed to repair any such utility facility shall be the minimum necessary to accomplish the task as agreed upon in writing by Grantors and Grantee, and upon completion, the area used to effectuate any such repair shall be restored to its previous state or condition, or as near thereto as may be practical under the circumstances.

5. No trees, ground cover, or other vegetation on the Easement Property shall be destroyed or removed therefrom by human agency, without the express written consent of Director, or as previously noted under item two (2).

6. At all times the Easement Property shall be kept free and clear of any garbage, trash, and machinery; and any and all other unsightly materials shall not be allowed to accumulate or be stored thereon. Provided, however, Grantors have no duty to remove garbage, trash, machinery, or other unsightly material unlawfully left or deposited upon the Easement Property by persons acting without Grantors' consent.

7. Any and all other man-made uses of, or activities or constructions on, the Easement Property that might endanger its natural or scenic state are forbidden.

8. Director has the right to periodically inspect the Easement Property for violations of the terms of this perpetual easement. If, within sixty (60) days after receiving Director's written notice of a violation, Grantors fail to remove, eliminate, or cure any such violation, the Director may remove, eliminate, or cure any such violation by Grantors at their sole expense, the Grantee being hereby invested with the right to bring suit against Grantors to collect any such expenses, which shall include the reasonable attorneys' fees incurred by Director in prosecuting such a collection action. Director may enter upon the Easement Property for the purpose of inspection.

9. Grantee shall have the right to post or clearly mark the boundaries of the Easement Property so to indicate and notify all public and private persons and entities that the Easement Property is subject to the easement, estate, interest, and servitude granted herein.

10. The easement, estate, interest, and servitude granted by this instrument, and the covenants made herein, are subject to the following rights of Grantors that shall be, and hereby are, to them expressly reserved:

A. Unless and except as otherwise expressly limited above, Grantors reserve for themselves, their heirs and assigns, all rights as owner of the Real Property, including the right to use the Easement for any and all purposes not inconsistent with the easement, estate, and interest granted, such as but not limited to hunting, fishing, general recreational uses, provided however that any and all such recreational uses by Grantors shall not include the use of any type of motorized or other vehicle whatsoever.

EXHIBIT A

B. Grantors reserve the right to continue the agricultural practice of harvesting hay only and the cutting of the hay within the second fifty foot (50') section of the one hundred foot (100') easement area.

C. Grantors reserve the right to restore the river corridor, which will entail cleaning up and removing any debris which would include fallen trees that would hinder the flow of the river waters.

The Real Property which is the subject of this easement, estate, interest, and servitude is more particularly described as follows: [LEGAL DESCRIPTION OF PROPERTY]

Being an Conservation Easement for EPA Stream Mitigation, Situated in the State of Ohio, County of Athens, and Township of Lodi, Section 29, Township 4, Range 13 of the Ohio Company Purchase Affecting the Charles E. and Lucille W. Hawk Parcel as recorded in O.R. 169 Pg. 481 and D.B. 338 Pg. 307 and being more particularly described as follows:

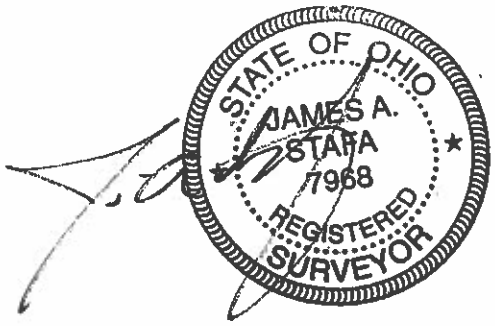
Being a strip of land one hundred (100) feet in width (50 feet on each side) from the center of the stream running across said Hawk Property. Beginning at the intersection of the stream with the North line of said property (For reference- East 265 Feet from the northeast corner of said property), then running with the meanders of the stream in a generally southerly direction to the intersection of the stream with the Middle Branch of the Shade River.

Also a strip of land one hundred (100) feet in width (50 feet on each side) from the center of the stream running across said Hawk Property. Beginning at the intersection of the stream with the South line of said property (For reference- East 115 Feet from the southwest corner of said property), then running with the meanders of the stream in a generally northerly direction to the intersection of the stream with the Middle Branch of the Shade River.

Also a strip of land two hundred (200 feet in width (100 feet on each side) from the center of the Middle Branch of the Shade River running across said Hawk property. Beginning at the intersection of the River with the Southwest line of said Hawk property (For reference- Northwest 275 Feet from the Southwest corner of said property), then running with the meanders of the stream in a generally easterly direction to the intersection of the River with the East line of said Hawk property (For reference- North 230 Feet from the Southeast corner of said property.

Subject however to any Rights of way and Easements of Record. Subject also to the natural movement of the stream bed through erosion and accretion. Easement prepared from existing records; G.P.S. positioned orthorectified aerial photography; and photogrammetric methods, no direct measurements were taken. By James Stafa Ohio Professional Surveyor Number 7968.

See Exhibit A for Conservation Easement Restrictions



IN WITNESS WHEREOF Maryland Blubaugh and _____ have hereunto set their hands on the 3 day of January, 2003.

Charles E. Hawk
CHARLES E. HAWK
(print name of signer)

Lucille W. Hawk
LUCILLE W. HAWK
(print name of signer)

STATE OF OHIO, COUNTY OF ATHENS ss:

BE IT REMEMBERED, that on the 3 day of JANUARY, 2003, before me the subscriber, a Notary Public in and for said state and county, personally came the above named CHARLES E. HAWK, who signed or acknowledged the signing of the foregoing instrument to be his/~~her~~ voluntary act and deed.

IN TESTIMONY WHEREOF, I have hereunto subscribed my name and affixed my official seal on the day and year last aforesaid.

Debbie L Brooks

NOTARY PUBLIC
My Commission expires: 1/10/05

STATE OF OHIO, COUNTY OF ATHENS ss:

BE IT REMEMBERED, that on the 3 day of JANUARY, 2003, before me the subscriber, a Notary Public in and for said state and county, personally came the above named LUCILLE W. HAWK, who signed or acknowledged the signing of the foregoing instrument to be ~~his~~/her voluntary act and deed.

IN TESTIMONY WHEREOF, I have hereunto subscribed my name and affixed my official seal on the day and year last aforesaid.

Debbie L Brooks

NOTARY PUBLIC
My Commission expires: 1/10/05

This instrument was prepared by or on behalf of the State of Ohio, Department of Transportation

Woodland Stand Description and Management Recommendations

Stand # 9 - 2.90 acres

Dominant Species; Yellow Poplar, Yellow Buckeye, Sugar Maple, some scattered Oak spp., Hickory Spp.

Forest Type or Dominant Vegetation: Upland Central Hardwoods

Stand Diameter or Size Class: Small/Medium sawtimber

Stocking Level: Fully stocked

Stand History: Grazing

Topography: Gently sloping with sections of steep slope near stream.

Invasive plants or insects impacting this stand: scattered grapevines, Autumn Olive along edge of Stand 8 area, scattered Barberry.

Stand Description: This is a sawtimber stand with an open understory because of previous grazing. All sizes of trees present but small/medium sawtimber sized tree classes are the most dominate. Because this area is heavily stocked with poplar trees it was separated out from adjacent Stand 10.

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

Management Recommendations:
Annual inspection of area for non –native invasive species – work on eradicating any found – Barberry.
Maintain property lines. Re-paint every 5 years or as necessary to remain easily visible.
Work on cutting grapevines from "crop" trees.

Is a timber harvest recommended? No, not in this 10-year management period. Landowner will monitor forest health and may decide to remove some trees if they begin to show decline.

Comments: High concentration of Yellow Polar trees in this area.

Desired Future Conditions: Allow area to naturally develop into a climax hardwood stand.

Desired Forest Type or Dominant Vegetation: Upland Central Hardwoods

Desired Stand Structure: Uneven Aged

Woodland Stand Description and Management Recommendations

Stand # 10 - 13.45 acres

Dominant Species; Red Oak Spp., White Oak Spp., Hickory Spp., Sugar Maple, Red Maple, Am. Beech, Black Cherry, Yellow Poplar, Yellow Buckeye, Paw Paw, Sycamore

Forest Type or Dominant Vegetation: Upland Central Hardwoods

Stand Diameter or Size Class: All size classes

Stocking Level: Fully stocked

Stand History: Grazing

Topography: Draws/Ravines with sections of steep slopes and flat benches

Invasive plants or insects impacting this stand: scattered grapevines, Autumn Olive along edge of Stand 8 area, scattered Barberry noted in understory.

Stand Description: Again, this is a sawtimber stand with an open understory in most areas. All sizes of trees in the stand composition, but small/medium sawtimber sized tree classes are the most dominate. Understory sapling trees are Sugar & Red Maple, Buckeye, Paw Paw and Beech. This stand includes a north facing side slope and several small hollows. The sides of these small ravines are rock outcroppings. Limited access into parts of this area because of the rugged terrain. Lower part of this stand is a good moist site with high soil quality indicator plants present near the conservation easement boundary - spice bush & paw paw.

Past management activities completed in this stand: Property lines located and painted with yellow/orange paint; trail established through part of the area.

Management Recommendations:
Annual inspection of area for non –native invasive species – work on eradicating any found.
Maintain property lines. Re-paint every 5 years or as necessary to remain easily visible.
Work on cutting grapevines from "crop" trees.

Is a timber harvest recommended? No, not in this 10-year management period. Landowner will monitor forest health and may decide to remove some trees if they begin to show decline.

Comments: This area contains some of the largest and highest quality trees on this farm. The rocky gorges are scenic.

Desired Future Conditions: Allow area to naturally develop into a climax hardwood stand.

Desired Forest Type or Dominant Vegetation: Upland Central Hardwoods

Desired Stand Structure: Uneven Aged

Woodland Stand Description and Management Recommendations

Stand # 11 - 12.87 acres

Dominant Species: Lower slope area -Yellow Poplar, Red Maple, Sugar Maple, Black Cherry, Yellow Buckeye, Am. Elm, Black Walnut, Hickory spp. and Sycamore along stream area. Upper slope includes more Red Oak spp., White Oak spp., and Hickory trees in stand composition.

Forest Type or Dominant Vegetation: Upland Central Hardwoods

Stand Diameter or Size Class: Poletimber/Small sawtimber with scattered large sawlog trees in mid slope area

Stocking Level: Fully stocked in most areas with desirable species

Stand History: Grazing

Topography: Gently sloping lower slope portion and steeper upper slope area

Invasive plants or insects impacting this stand: scattered grapevines, Bush Honeysuckle, Autumn Olive, Multi-Flora-Rose, EAB damage

Stand Description: This stand covers the wooded slopes in the southern point of the farm, near "old" St Rt 33. At one point, this area had been open land and reverted back into forestland – late successional stage of development. Species composition is heavy to pioneer, "soft" hardwood, lower slope area, with Oaks & Hickory trees present in the upper, drier soils areas. Trees are growing at an acceptable rate. Lower slope area contains quality pole sized Black Walnut trees. The larger sawtimber trees found scattered throughout the stand were present when this area was grazed. Heavy Autumn Olive along edges of the road, powerline easement and field area.

Past management activities completed in this stand: property lines located and will be marked.

Management Recommendations:
Work on eradication of any non-native invasive species (Autumn Olive) as time permits
Cut grapevines from "crop" trees - Oaks, B. Cherry, Yellow Poplar, Sugar Maple
Paint property lines. Redo every 5 years or as necessary to remain easily visible.

If a timber harvest is recommended: No, not in this 10-year Plan

Comments: This is a low priority area for work once the grapevines are cut from potential future "crop" trees.

Desired Future Conditions: Allow area to develop into a mature hardwood forest.
Desired Forest Type or Dominant Vegetation: Upland Central Hardwoods
Desired Stand Structure: Uneven Aged

Woodland Stand Description and Management Recommendations

Stand # 12 - 6.0 acres Non-Forest Stewardship Area – Agricultural Area

Dominant Species: grasses & broadleaf plants

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 along field edges is the biggest issue, Multi Flora Rose and Japanese Vine Honeysuckle in some areas.

Stand Description: This area included the ridgetop 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

Management Recommendations:
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 # 13 - 1.2 acres Non-Forest Stewardship Area – Powerline right-of-way

Dominant Species: NA

Forest Type or Dominant Vegetation: grasses & broadleaf plants

Stand Diameter or Size Class: N/A

Stocking Level: N/A

Stand History: N/A

Topography: Rolling

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

Stand Description: This area covers the powerline right-of-way that pass through forested Stand 11 on this tract. This is an active overhead electric line.

Past management activities completed in this stand: mowing of these areas has been done in the past.

Management Recommendations:
Annually inspect for invasive species along right of way edges, work on eradicating any found as time permits

Is a timber harvest recommended? N/A

Comments: This area will be consistent "trouble" area for non-native invasive species to become established in and then spread into adjacent forest stands.

Desired Future Conditions:

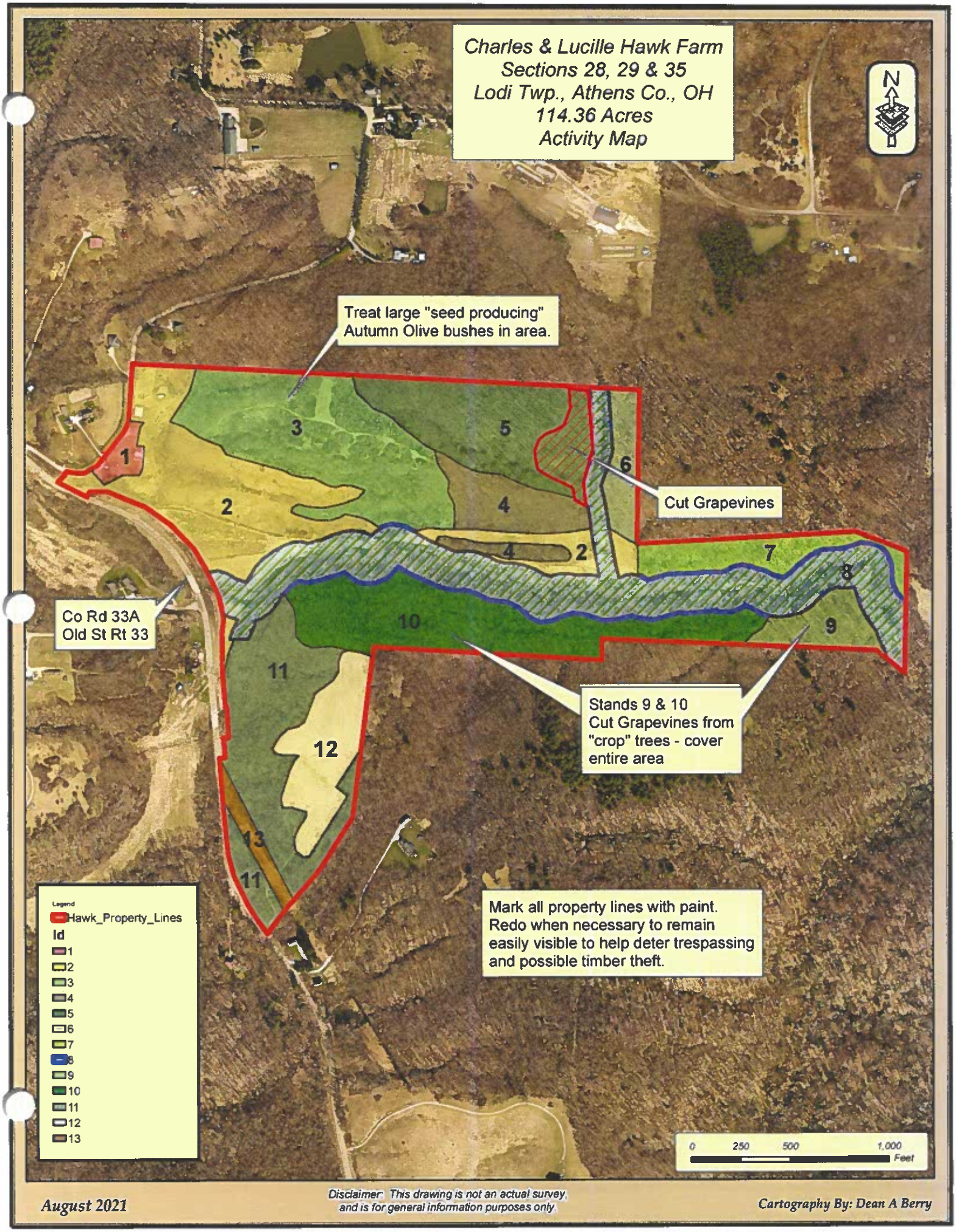
Desired Forest Type or Dominant Vegetation:

Desired Stand Structure:

Recommended Management Activity Schedule

Year(s) Suggested	Mgmt. Unit	Required Task?	EQIP Practice?	Acres	Recommendations
2021, 2026, 2031	All	☒	☐	NA	Inspect & remark any portions of property lines with paint and signs necessary to help prevent illegal trespass. **This task should be completed before this farm is eligible for enrolment into either OFTL or CAUV forestry property tax reduction programs.**
2022 -2027	5	☐	☒	10 acres	Cut scattered grapevines and work on eradicating the Autumn Olive shrubs identified in this area. Cover entire stand.
2024 -2029	9 & 10	☐	☒	15 acres	Cut grapevines out of all the Oak, Poplar, Maple and Black Walnut trees and other potential "crop" trees. Medium infestation-entire areas
2026-2031	4 & 11	☐	☒	18 acres	Cut grapevines out of all the Oak, Poplar, Maple and Black Walnut trees and other potential "crop" trees. Cover entire stands treating the scattered vines.
2021 -2031	Entire farm	☐	☒	50+ acres	As time permits, pick areas to work on eradicating the Autumn Olive from. Annually inspect areas for other non-native invasive species like Barberry, Privet and Ailanthus.
2021 -2031	All	☐	☐	N/A	Maintain (mow) all roads and trails on this tract at least annually for access & wildlife benefit
2026 & 2031	Whole Property	☒	☐	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



August 2021

Disclaimer: This drawing is not an actual survey and is for general information purposes only.

Cartography By: Dean A Berry

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): DtD, DtE, DtF, GsC, GuD, KnL1AF, Me1AF, Omu1C1, RcD, StE, VbD, WdB, WhD
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 Species Used - Red Oak rating
Good to Excellent Species Used - tuliptree 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 since the early 1970's 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

Almost all the forested areas have been pastured in the past. Stands 5,6,9 & 10 contain some of the largest sawtimber trees on this farm. These areas all have scattered 24"+ diameter trees – many are red oak species. Large beech, maple and hickory trees found in Stand 5, whereas Stand 9 in mainly yellow poplar sawlog sized trees. The conservation easement covering Stand 8 restricts harvesting of trees within that designated area without prior consent from the Director of Transportation of the State of Ohio.

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 found in the forested land on this tract provides suitable habitat for a variety of game and non-game species of birds and animals. Openings, such as the mowed field areas, the grassed bottomland areas, Stand 3, the overgrown field, are all grass and broadleaf plants, that provide the additional feeding & nesting sites required by some species. Areas of thick understory benefit both game & non-game species of mammals and birds. The stream protection easement areas (Stand 8) are an important ecological asset for a variety of birds, small mammals, fish, reptiles, insects and amphibians. Note -farm is utilized for deer hunting.

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.

The majority of the water resources are part of a perpetual easement agreement that was executed by ODOT and the Hawk's in 2003. This easement covers the entire portion of the Middle Fork of Shade River and parts of 2 un-named intermittent streams located on this farm. The area covered under this easement is Stand 8 of this management plan.

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

There are areas identified in the National Wetlands Inventory Database, as well as a perennial stream (Middle Fork of Shade River) and 3 un-named intermittent streams.

See attached map.

Recreation – current and potential recreational activities at property:

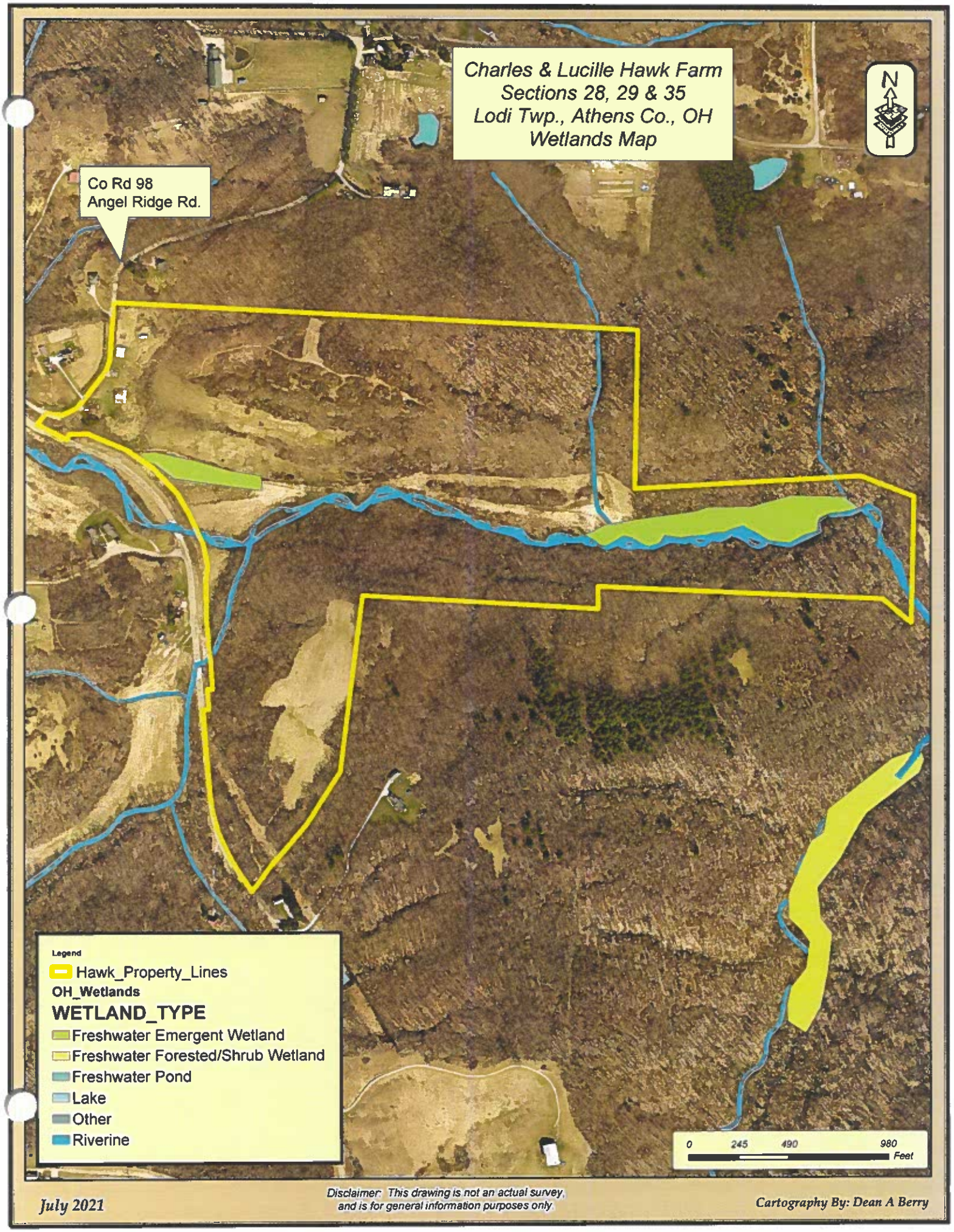
Each forest has a unique history and character…and this continues to build under your stewardship. This forest could be used for hunting, hiking, or wildlife watching. Many landowners find enjoyment in doing improvement work in their woods. Others find pleasure in watching the birds. Some folks gain 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. This entire farm is utilized for deer hunting.

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


Charles & Lucille Hawk Farm
Sections 28, 29 & 35
Lodi Twp., Athens Co., OH
Wetlands Map
N
Co Rd 98
Angel Ridge Rd.
Legend
Hawk_Property_Lines
OH_Wetlands
WETLAND_TYPE
Freshwater Emergent Wetland
Freshwater Forested/Shrub Wetland
Freshwater Pond
Lake
Other
Riverine
0 245 490 980
Feet
July 2021
Disclaimer: This drawing is not an actual survey, and is for general information purposes only.
Cartography By: Dean A Berry

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 farm is located along two County Roads but only a small portion of the land can be seen from the roads. This is a clean farm that has been well maintained.

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. 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, 9, 10 & 11) are in good condition, considering the lack of management activity in recent years. The pasturing of these woodlots has impacted the forest characteristics in these areas. Emerald Ash Borer (EAB) has killed off all the ash trees on this farm. Non-native invasive plants, like Autumn Olive, 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, Black Cherry, Yellow Poplar & 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 intial 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 eggs 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.ht

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.*

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/ 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 a few issues with some of the trails on this tract. Some trails have steep grades that show some rutting issues, mainly in Stand 3 area. Overall, there is a very limited number of mowed paths. Some of these are access into the mowed field areas.

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.

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.

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 wildflowers 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 honeybees and butterflies are examples of beneficial insects. Medicinal shrubs and herbs, mushrooms and maple syrup are more examples of other beneficial forest resources.

Addendums

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

Landowner Plan packet also contains:

- Forestry Terms
- How to Mark Property Lines
- Autumn Olive Fact Sheet
- Barberry Fact Sheet
- Japanese Vine Honeysuckle Fact Sheet
- How to cut grapevines

United States Department of Agriculture

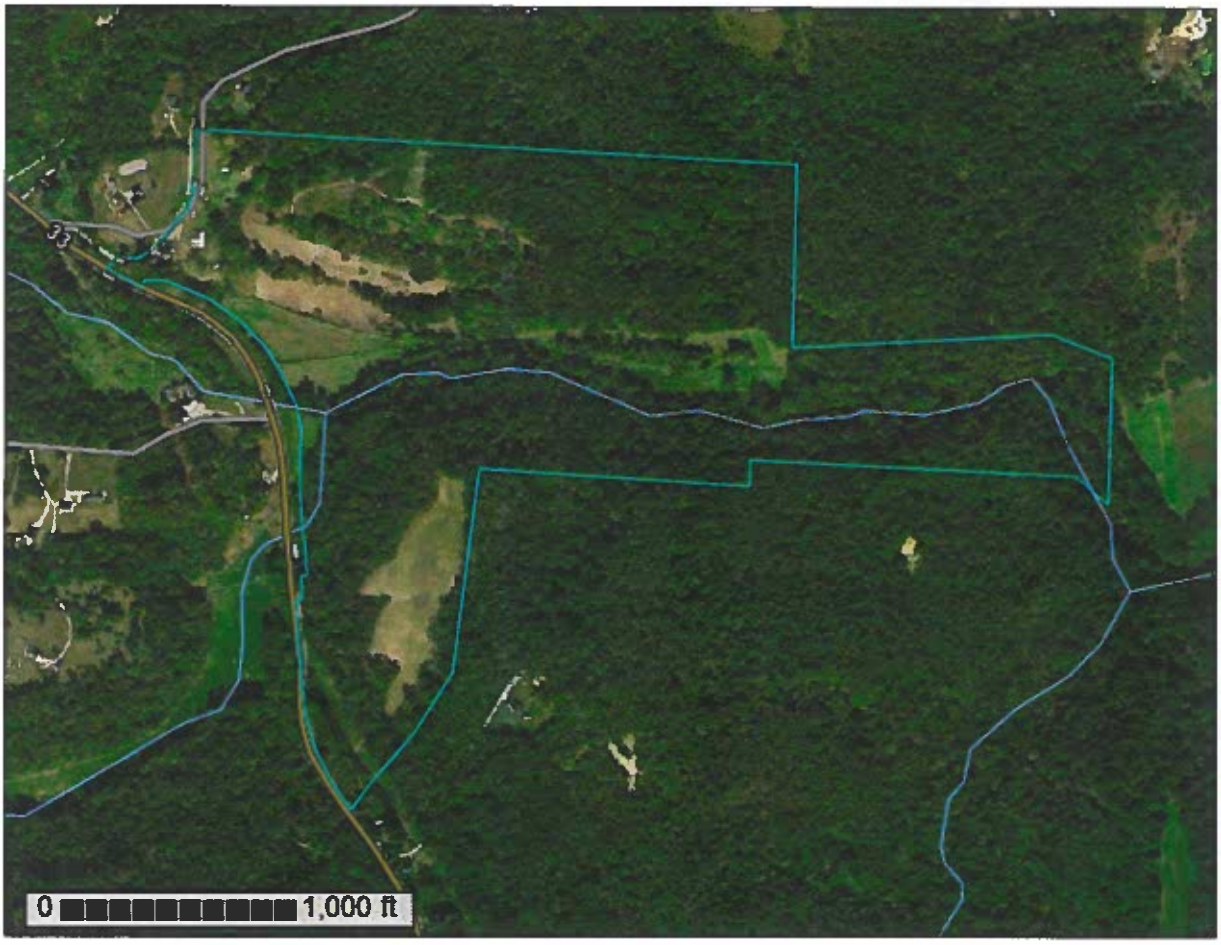
NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Athens County, Ohio

Charles & Lucille Hawk Farm



July 10, 2021

alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410 or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

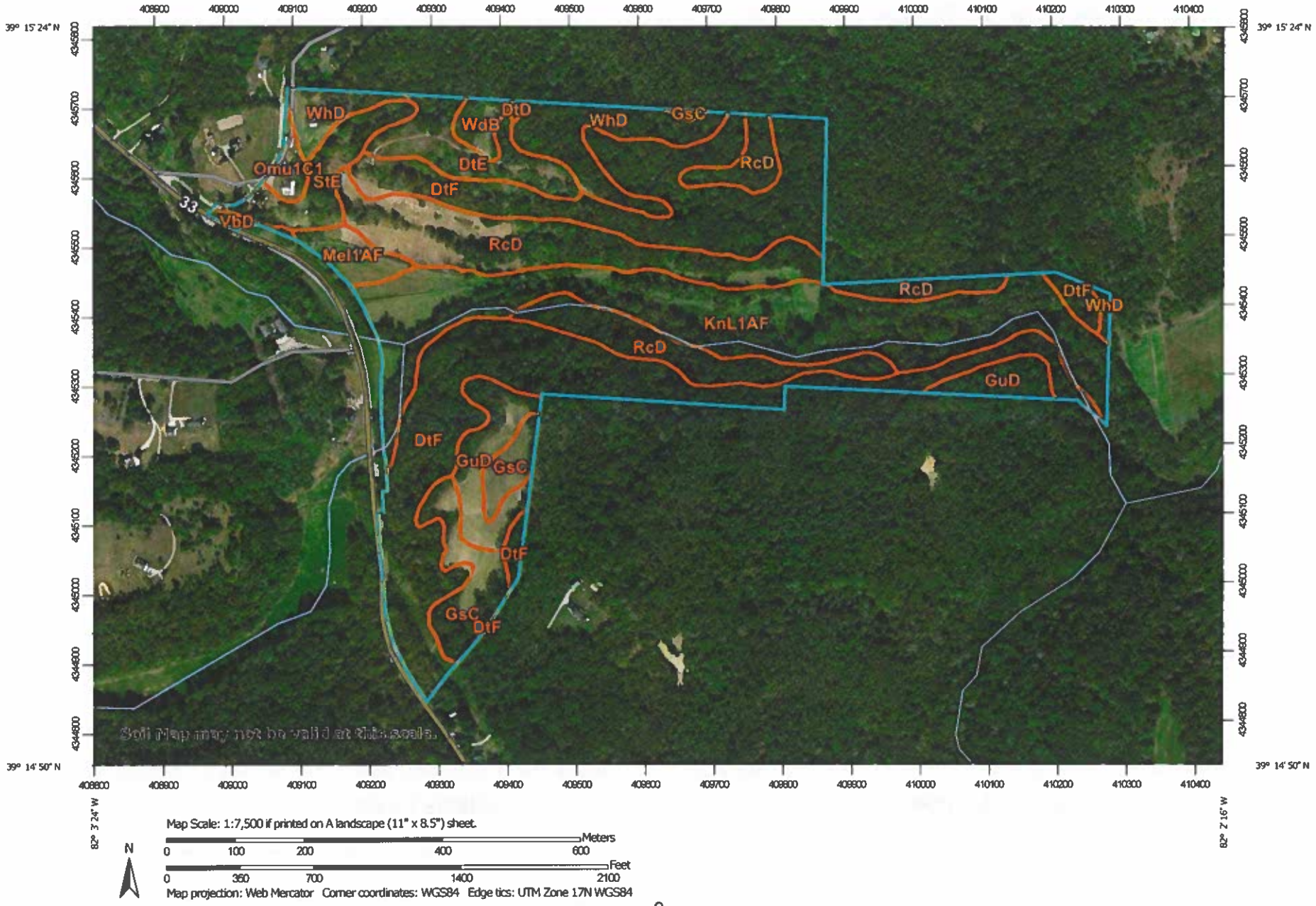
Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.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82° 2' 16" W
39° 15' 24" N
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Soil Map may not be valid at this scale.
Map Scale: 1:7,500 if printed on A landscape (11" x 8.5") sheet.
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Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 17N WGS84

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
DtD	Dekalb-Westmoreland complex, 15 to 25 percent slopes	0.1	0.1%
DtE	Dekalb-Westmoreland complex, 25 to 40 percent slopes	4.7	4.1%
DtF	Dekalb-Westmoreland complex, 40 to 70 percent slopes	38.0	33.2%
GsC	Guernsey silt loam, 8 to 15 percent slopes	5.6	4.9%
GuD	Guernsey-Upshur complex, 15 to 25 percent slopes	5.9	5.1%
KnL1AF	Kinnick-Lindside silt loams, 0 to 3 percent slopes, frequently flooded	24.6	21.5%
Mel1AF	Melvin silt loam, 0 to 2 percent slopes, frequently flooded	2.0	1.7%
Omu1C1	Omulga silt loam, 6 to 12 percent slopes	1.0	0.9%
RcD	Richland loam, 15 to 25 percent slopes	19.8	17.3%
StE	Steinsburg sandy loam, 25 to 40 percent slopes	3.9	3.4%
VbD	Vandalia-Brookside complex, 15 to 25 percent slopes	0.3	0.3%
WdB	Wellston silt loam, 3 to 8 percent slopes	1.2	1.0%
WhD	Westmoreland-Guernsey silt loams, 15 to 25 percent slopes	7.4	6.5%
Totals for Area of Interest		**114.4**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Landform position (three-dimensional): Interfluve, side slope, crest
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Fine-loamy residuum weathered from siltstone

Typical profile

A - 0 to 3 inches: silt loam
E - 3 to 6 inches: silt loam
BE - 6 to 11 inches: silt loam
Bt - 11 to 32 inches: channery silty clay loam
BC - 32 to 38 inches: very parachannery silty clay loam
C - 38 to 44 inches: very parachannery silt loam
Cr - 44 to 50 inches: bedrock
R - 50 to 60 inches: bedrock

Properties and qualities

Slope: 15 to 25 percent
Depth to restrictive feature: 39 to 67 inches to paralithic bedrock; 40 to 82 inches to lithic bedrock
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.17 to 0.31 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Moderate (about 7.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: B
Hydric soil rating: No

Minor Components

Guernsey

Percent of map unit: 10 percent
Landform: Hillslopes
Landform position (two-dimensional): Shoulder, backslope, footslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Linear
Hydric soil rating: No

DtE—Dekalb-Westmoreland complex, 25 to 40 percent slopes

Map Unit Setting

National map unit symbol: 2xb22
Elevation: 580 to 1,020 feet
Mean annual precipitation: 37 to 45 inches

Bt - 11 to 32 inches: channery silty clay loam
BC - 32 to 38 inches: very parachannery silty clay loam
C - 38 to 44 inches: very parachannery silt loam
Cr - 44 to 50 inches: bedrock
R - 50 to 60 inches: bedrock

Properties and qualities

Slope: 25 to 40 percent
Depth to restrictive feature: 39 to 67 inches to paralithic bedrock; 40 to 82 inches to lithic bedrock
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.17 to 0.31 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Moderate (about 7.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: B
Hydric soil rating: No

Minor Components

Guernsey

Percent of map unit: 10 percent
Landform: Hillslopes
Landform position (two-dimensional): Backslope, footslope
Landform position (three-dimensional): Head slope, side slope
Down-slope shape: Convex, concave
Across-slope shape: Linear
Hydric soil rating: No

Rock outcrop

Percent of map unit: 0 percent

DtF—Dekalb-Westmoreland complex, 40 to 70 percent slopes

Map Unit Setting

National map unit symbol: 2xb23
Elevation: 580 to 1,040 feet
Mean annual precipitation: 37 to 45 inches
Mean annual air temperature: 49 to 55 degrees F
Frost-free period: 171 to 198 days
Farmland classification: Not prime farmland

Map Unit Composition

Dekalb and similar soils: 55 percent

Properties and qualities

Slope: 40 to 70 percent
Depth to restrictive feature: 39 to 67 inches to paralithic bedrock; 40 to 82 inches to lithic bedrock
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.17 to 0.31 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Moderate (about 7.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: B
Hydric soil rating: No

Minor Components

Guernsey

Percent of map unit: 10 percent
Landform: Hillslopes
Landform position (two-dimensional): Backslope, footslope
Landform position (three-dimensional): Head slope, side slope
Down-slope shape: Convex, concave
Across-slope shape: Linear
Hydric soil rating: No

Rock outcrop

Percent of map unit: 0 percent

GsC—Guernsey silt loam, 8 to 15 percent slopes

Map Unit Setting

National map unit symbol: 2t32f
Elevation: 600 to 1,880 feet
Mean annual precipitation: 37 to 49 inches
Mean annual air temperature: 47 to 53 degrees F
Frost-free period: 165 to 205 days
Farmland classification: Farmland of local importance

Map Unit Composition

Guernsey and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Westmoreland

Percent of map unit: 5 percent
Landform: Hills
Landform position (two-dimensional): Summit, backslope, shoulder
Landform position (three-dimensional): Crest, interfluve, side slope, head slope
Down-slope shape: Convex
Across-slope shape: Linear
Hydric soil rating: No

GuD—Guernsey-Upshur complex, 15 to 25 percent slopes

Map Unit Setting

National map unit symbol: l15f
Elevation: 640 to 1,120 feet
Mean annual precipitation: 37 to 45 inches
Mean annual air temperature: 48 to 55 degrees F
Frost-free period: 144 to 180 days
Farmland classification: Farmland of local importance

Map Unit Composition

Guernsey and similar soils: 50 percent
Upshur and similar soils: 30 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Guernsey

Setting

Landform: Hills
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Residuum

Typical profile

H1 - 0 to 8 inches: silt loam
H2 - 8 to 23 inches: silty clay loam
H3 - 23 to 44 inches: clay
H4 - 44 to 50 inches: clay
H5 - 50 to 54 inches: weathered bedrock

Properties and qualities

Slope: 15 to 25 percent
Depth to restrictive feature: 50 to 80 inches to paralithic bedrock
Drainage class: Moderately well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately high (0.00 to 0.20 in/hr)
Depth to water table: About 24 to 42 inches

KnL1AF—Kinnick-Lindside silt loams, 0 to 3 percent slopes, frequently flooded

Map Unit Setting

National map unit symbol: 2myy3
Elevation: 660 to 1,150 feet
Mean annual precipitation: 34 to 45 inches
Mean annual air temperature: 50 to 54 degrees F
Frost-free period: 150 to 190 days
Farmland classification: Prime farmland if protected from flooding or not frequently flooded during the growing season

Map Unit Composition

Kinnick and similar soils: 70 percent
Lindside and similar soils: 20 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Kinnick

Setting

Landform: Flood plains
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Silty alluvium

Typical profile

Ap - 0 to 12 inches: silt loam
Bw - 12 to 68 inches: silt loam
C - 68 to 80 inches: silt loam

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: About 42 to 72 inches
Frequency of flooding: FrequentNone
Frequency of ponding: None
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water capacity: High (about 11.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2w
Hydrologic Soil Group: B

Mel1AF—Melvin silt loam, 0 to 2 percent slopes, frequently flooded

Map Unit Setting

National map unit symbol: 2myy7
Elevation: 300 to 950 feet
Mean annual precipitation: 34 to 45 inches
Mean annual air temperature: 50 to 54 degrees F
Frost-free period: 150 to 190 days
Farmland classification: Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season

Map Unit Composition

Melvin and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Melvin

Setting

Landform: Depressions on flood plains
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Silty alluvium

Typical profile

A - 0 to 6 inches: silt loam
Bg - 6 to 24 inches: silt loam
Cg - 24 to 80 inches: silt loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Poorly drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: About 0 to 6 inches
Frequency of flooding: FrequentNone
Frequency of ponding: Frequent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water capacity: High (about 11.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3w
Hydrologic Soil Group: B/D
Forage suitability group: Unnamed (G124XYC-3OH)
Other vegetative classification: Unnamed (G124XYC-3OH)
Hydric soil rating: Yes

Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water capacity: Moderate (about 6.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: C
Forage suitability group: Unnamed (G124XYF-3OH)
Other vegetative classification: Unnamed (G124XYF-3OH)
Hydric soil rating: No

Minor Components

Wyatt

Percent of map unit: 4 percent
Landform: Terraces
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Tread, riser
Down-slope shape: Linear
Across-slope shape: Linear
Other vegetative classification: Unnamed (G124XYA-6OH)
Hydric soil rating: No

Allegheny

Percent of map unit: 3 percent
Landform: Stream terraces
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Other vegetative classification: Acid Loams (AL3), Unnamed (G124XYA-1OH)
Hydric soil rating: No

Gallia

Percent of map unit: 3 percent
Landform: Terraces
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Riser, tread
Down-slope shape: Convex
Across-slope shape: Linear
Other vegetative classification: Unnamed (G124XYA-1OH)
Hydric soil rating: No

Wharton

Percent of map unit: 2 percent
Landform: Hills
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Linear
Other vegetative classification: Unnamed (G124XYA-6OH)
Hydric soil rating: No

Westmoreland

Percent of map unit: 2 percent

Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: About 36 to 72 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Moderate (about 7.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: B
Hydric soil rating: No

Minor Components

Steinsburg

Percent of map unit: 5 percent
Landform: Hills

Dekalb

Percent of map unit: 5 percent
Landform: Hills

Brookside

Percent of map unit: 5 percent
Landform: Hills

StE—Steinsburg sandy loam, 25 to 40 percent slopes

Map Unit Setting

National map unit symbol: l162
Elevation: 300 to 1,400 feet
Mean annual precipitation: 37 to 46 inches
Mean annual air temperature: 48 to 55 degrees F
Frost-free period: 160 to 190 days
Farmland classification: Not prime farmland

Map Unit Composition

Steinsburg and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Steinsburg

Setting

Landform: Hills
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex

Farmland classification: Farmland of local importance

Map Unit Composition

Vandalia and similar soils: 55 percent
Brookside and similar soils: 35 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Vandalia

Setting

Landform: Hills
Parent material: Colluvium

Typical profile

H1 - 0 to 5 inches: silty clay loam
H2 - 5 to 48 inches: silty clay
H3 - 48 to 60 inches: channery silty clay

Properties and qualities

Slope: 15 to 25 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.60 in/hr)
Depth to water table: About 48 to 72 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Moderate (about 8.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: C
Hydric soil rating: No

Description of Brookside

Setting

Landform: Hills
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Colluvium

Typical profile

H1 - 0 to 5 inches: silt loam
H2 - 5 to 36 inches: silty clay loam
H3 - 36 to 60 inches: clay

Properties and qualities

Slope: 15 to 25 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Runoff class: Very high

E - 2 to 7 inches: silt loam
BE - 7 to 10 inches: silt loam
Bt1 - 10 to 15 inches: silt loam
Bt2 - 15 to 21 inches: silt loam
Bt3 - 21 to 25 inches: silty clay loam
2BC - 25 to 36 inches: channery loam
2C - 36 to 45 inches: extremely channery loam
2R - 45 to 55 inches: bedrock

Properties and qualities

Slope: 3 to 8 percent
Depth to restrictive feature: 38 to 72 inches to lithic bedrock
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Very low (0.00 to 0.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Moderate (about 6.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: C
Hydric soil rating: No

Minor Components

Zanesville

Percent of map unit: 10 percent
Landform: Ridges
Landform position (two-dimensional): Shoulder
Landform position (three-dimensional): Crest
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Gilpin

Percent of map unit: 5 percent
Landform: Ridges
Landform position (two-dimensional): Summit, shoulder
Landform position (three-dimensional): Interfluve, side slope
Down-slope shape: Convex
Across-slope shape: Convex, linear
Hydric soil rating: No

WhD—Westmoreland-Guernsey silt loams, 15 to 25 percent slopes

Map Unit Setting

National map unit symbol: l16p
Elevation: 800 to 1,500 feet

Typical profile

H1 - 0 to 7 inches: silt loam
H2 - 7 to 12 inches: silty clay loam
H3 - 12 to 39 inches: clay
H4 - 39 to 50 inches: clay
H5 - 50 to 60 inches: weathered bedrock

Properties and qualities

Slope: 15 to 25 percent
Depth to restrictive feature: 50 to 80 inches to paralithic bedrock
Drainage class: Moderately well drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately high (0.00 to 0.20 in/hr)
Depth to water table: About 24 to 42 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 15 percent
Available water capacity: Moderate (about 6.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: C
Hydric soil rating: No

Minor Components

Berks

Percent of map unit: 5 percent
Landform: Hills

Dekalb

Percent of map unit: 5 percent
Landform: Hills

Upshur

Percent of map unit: 5 percent
Landform: Hills

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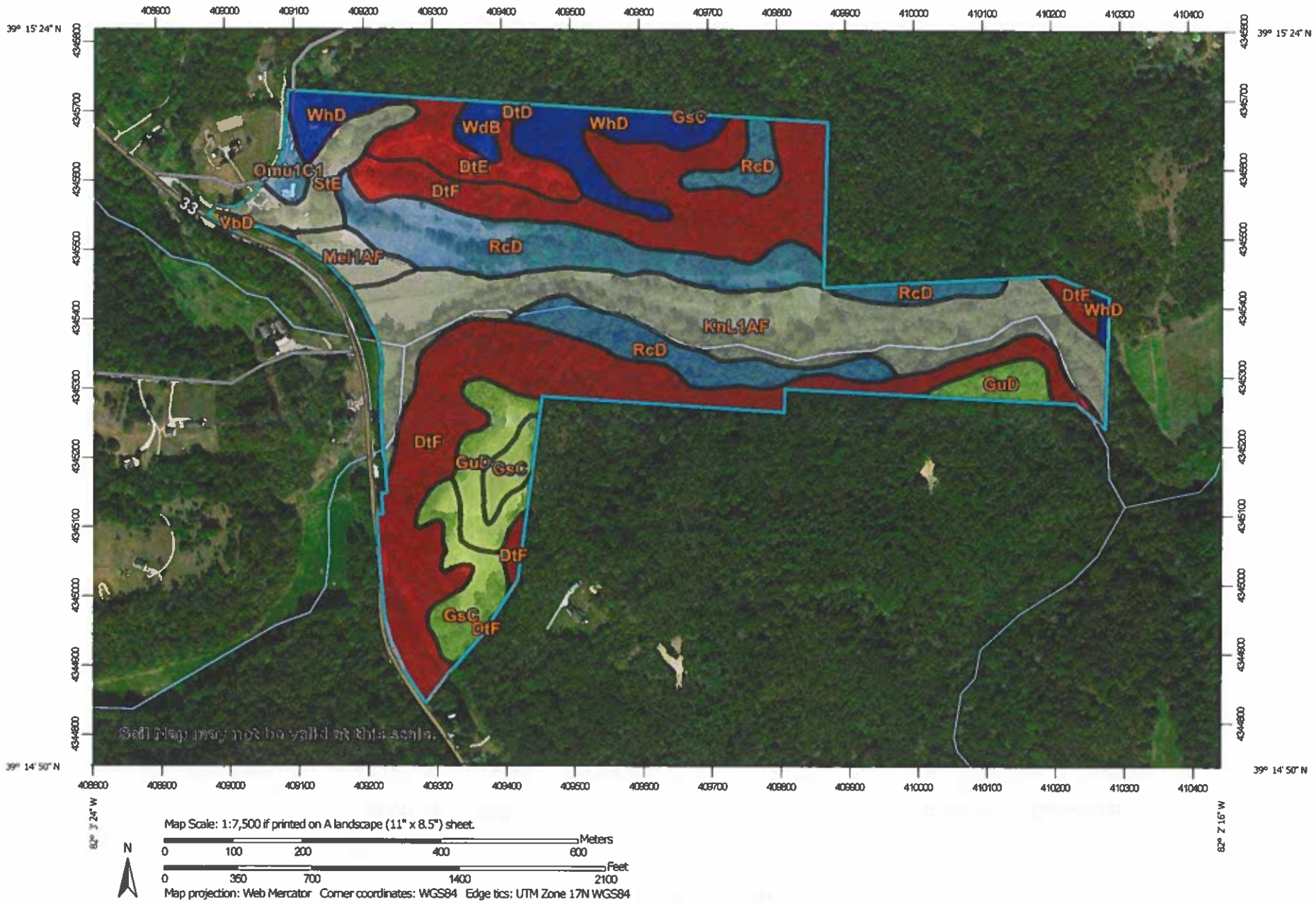
United States Department of Agriculture, Soil Conservation Service. 1961. Land capability classification. U.S. Department of Agriculture Handbook 210. http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_052290.pdf

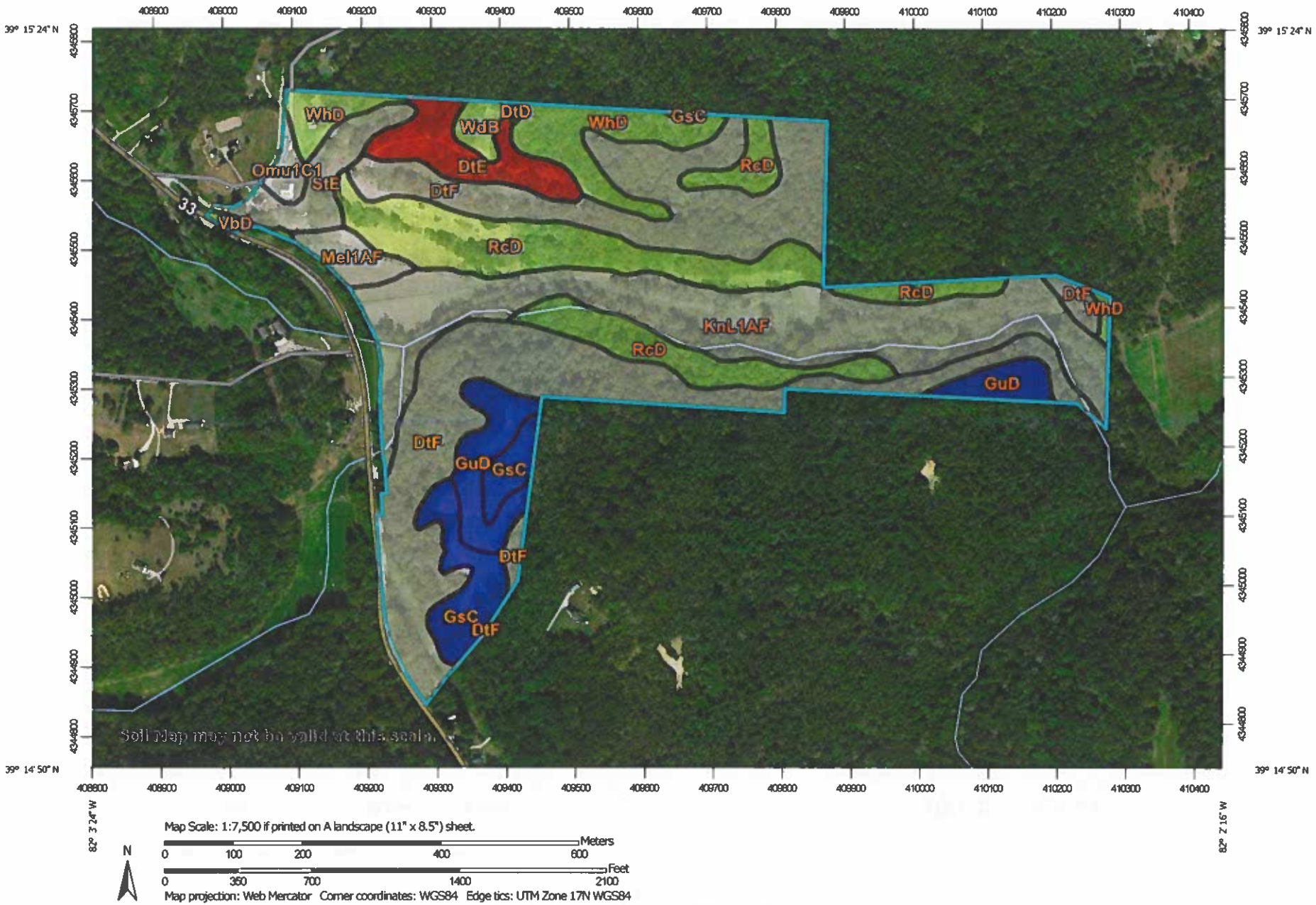
Forest Productivity (Tree Site Index): northern red oak (Schnur 1937 (820))—Athens County, Ohio
(Charles & Lucille Hawk Farm)



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
DtD	Dekalb-Westmoreland complex, 15 to 25 percent slopes	62	0.1	0.1%
DtE	Dekalb-Westmoreland complex, 25 to 40 percent slopes	62	4.7	4.1%
DtF	Dekalb-Westmoreland complex, 40 to 70 percent slopes	62	38.0	33.2%
GsC	Guernsey silt loam, 8 to 15 percent slopes	78	5.6	4.9%
GuD	Guernsey-Upshur complex, 15 to 25 percent slopes	78	5.9	5.1%
KnL1AF	Kinnick-Lindside silt loams, 0 to 3 percent slopes, frequently flooded		24.6	21.5%
Mel1AF	Melvin silt loam, 0 to 2 percent slopes, frequently flooded		2.0	1.7%
Omu1C1	Omulga silt loam, 6 to 12 percent slopes	80	1.0	0.9%
RcD	Richland loam, 15 to 25 percent slopes	80	19.8	17.3%
StE	Steinsburg sandy loam, 25 to 40 percent slopes		3.9	3.4%
VbD	Vandalia-Brookside complex, 15 to 25 percent slopes	77	0.3	0.3%
WdB	Wellston silt loam, 3 to 8 percent slopes	81	1.2	1.0%
WhD	Westmoreland-Guernsey silt loams, 15 to 25 percent slopes	81	7.4	6.5%
Totals for Area of Interest			**114.4**	**100.0%**

Forest Productivity (Tree Site Index): tuliptree (Beck 1962 (360))—Athens County, Ohio
(Charles & Lucille Hawk Farm)



Map Scale: 1:7,500 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 100 200 400 600

Feet: 0 350 700 1400 2100

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

Forest Productivity (Tree Site Index): tuliptree (Beck 1962 (360))

Map unit symbol	Map unit name	Rating (feet)	Acres in AOI	Percent of AOI
DtD	Dekalb-Westmoreland complex, 15 to 25 percent slopes		0.1	0.1%
DtE	Dekalb-Westmoreland complex, 25 to 40 percent slopes	75	4.7	4.1%
DtF	Dekalb-Westmoreland complex, 40 to 70 percent slopes		38.0	33.2%
GsC	Guernsey silt loam, 8 to 15 percent slopes	95	5.6	4.9%
GuD	Guernsey-Upshur complex, 15 to 25 percent slopes	95	5.9	5.1%
KnL1AF	Kinnick-Lindside silt loams, 0 to 3 percent slopes, frequently flooded		24.6	21.5%
Mel1AF	Melvin silt loam, 0 to 2 percent slopes, frequently flooded		2.0	1.7%
Omu1C1	Omulga silt loam, 6 to 12 percent slopes		1.0	0.9%
RcD	Richland loam, 15 to 25 percent slopes	90	19.8	17.3%
StE	Steinsburg sandy loam, 25 to 40 percent slopes		3.9	3.4%
VbD	Vandalia-Brookside complex, 15 to 25 percent slopes	90	0.3	0.3%
WdB	Wellston silt loam, 3 to 8 percent slopes	90	1.2	1.0%
WhD	Westmoreland-Guernsey silt loams, 15 to 25 percent slopes	90	7.4	6.5%
Totals for Area of Interest			**114.4**	**100.0%**

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	
			Cu ft/ac/yr	
DtD—Dekalb-Westmoreland complex, 15 to 25 percent slopes				
Dekalb	Northern red oak	62	29.00	Black oak, Eastern white pine, Red pine, Tuliptree, Virginia pine, White ash
Westmoreland	Eastern white pine	75	143.00	Black cherry, Eastern white pine, Northern red oak, Red pine, Tuliptree, Virginia pine, White ash
	Northern red oak	81	57.00	
	Tuliptree	90	86.00	

Forestland Productivity–Athens County, Ohio				
Map unit symbol and soil name	Potential productivity			Trees to manage
	Common trees	Site Index	Volume of wood fiber	
			Cu ft/ac/yr	
KnL1AF—Kinnick-Lindside silt loams, 0 to 3 percent slopes, frequently flooded				
Kinnick	Oak	—	—	Black walnut
Lindside	Black walnut	—	—	Black oak, Black walnut, Eastern white pine, Japanese larch, Northern red oak, Norway spruce, Shortleaf pine, Tuliptree, White ash, White oak
	Northern red oak	86	72.00	
	Red maple	—	—	
	Tuliptree	95	100.00	
	White ash	85	57.00	
	White oak	85	72.00	
Mel1AF—Melvin silt loam, 0 to 2 percent slopes, frequently flooded				
Melvin	American elm	—	—	American sycamore, Eastern cottonwood, Loblolly pine, Pin oak, Sweetgum, Willow oak
	Cherrybark oak	91	114.00	
	Common hackberry	—	—	
	Eastern cottonwood	101	129.00	
	Green ash	—	—	
	Hickory	—	—	
	Pin oak	99	100.00	
	Red maple	—	—	
	Sweetgum	89	100.00	
Omu1C1—Omulga silt loam, 6 to 12 percent slopes				
Omulga	Black cherry	—	—	Black cherry, Black locust, Black walnut, Eastern white pine, Green ash, Northern red oak, Red pine, Tuliptree, White ash, White oak
	Black walnut	—	—	
	Northern red oak	80	57.00	
	Sugar maple	—	—	
	Tuliptree	—	—	
	White ash	—	—	
	White oak	—	—	
RcD—Richland loam, 15 to 25 percent slopes				
Richland	Black walnut	—	—	Eastern white pine, Northern red oak, Red pine, Tuliptree, White ash, White oak
	Northern red oak	80	57.00	
	Tuliptree	90	86.00	
	White ash	—	—	

Data Source Information

Soil Survey Area: Athens County, Ohio
Survey Area Data: Version 22, Jun 10, 2020