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OCT 16 2024

Jill Davidson  
Athens County Auditor



**WOODLAND STEWARDSHIP  
MANAGEMENT PLAN  
SUGAR CREEK**



# *Serby's Forestry Services*



Stand 17

## *Woodland Stewardship Management Plan*

### ***SUGAR CREEK COAL & MINING COMPANY***

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#### **Owner's Information:**

Case Number: 05-

Owner: George H. Fetterolf

Signed: \_\_\_\_\_

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

Date: 10/15/24

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#### **Preparer's Information:**

Prepared by: William J. Serbonich CF

Signature: \_\_\_\_\_

Serby's Forestry Services

2165 Clara Avenue

Albany, OH 45710

Date: 09/25/24

This plan is valid for the period beginning 10/15/24 and ending 10/15/39.

Plan Status: Revised & Updated from 2013 Plan

# Serby's Forestry Services



Stand 17

## Woodland Stewardship Management Plan

### **SUGAR CREEK COAL & MINING COMPANY**

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Case Number: 05-

Owner: George H. Fetterolf

Signed: George Fetterolf

Date: 10/8/24

Date: 10/15/24

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#### Preparer's Information:

Prepared by: William J. Serbonich CF

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2165 Clara Avenue

Albany, OH 45710

Date: 09/25/24

This plan is valid for the period beginning 10/15/24 and ending 10/15/39.

Plan Status: Revised & Updated from 2013 Plan

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

Owner George H. Fetterolf  
Address 2290 E. Beachside Lane  
Vero Beach, FL 32963  
Phone 772-713-5693 Case Number 05-  
County Athens Township/Village/City: Dover Township  
Location: Property Address: Pts of Sections 1,2,3,7,8,9FR 3  
Dover Township, Athens County, State of Ohio (See parcel # list in plan)  
Contact : George H. Fetterolf  
Woodland Stewardship Acreage: 814.074 Non-woodland Stewardship Acreage\*: 12.00  
Total Property Acres 826.074 \* Non-woodland acres for which stewardship recommendations are made.

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

- CAUV  American Tree Farm Program  
 Environmental Quality Incentives Program(EQIP)  Landowner Education & Guidance

Property coordinates ( in WGS 84, decimal degrees.) (Sugar Creek bridge on SR 550)

Latitude: N39.38321 Longitude W82.07667

### **Landowner Objectives**

1. Manage the property for long term sustainable forest productivity (Big trees healthy forest).
2. Manage the property for healthy forest growth & attributes.
3. Generate wood products & income.
4. Create & maintain quality wildlife habitat for appreciation & hunting.
5. Maintain & enhance recreational opportunity (hiking, nature study & aesthetics).
6. Manage for healthy woodland ecology including native trees, shrubs & understory plants.
7. Maintain & improve traditional regional resource activities upon the property where applicable including mineral management (history of gas & oil production, utility corridors & mining).
8. Identify, protect & preserve unique natural features, cultural, archeological & historic.
9. Maintain and improve access corridors.
10. Minimize erosion & improve water quality.
11. Identify, discourage & control invasive species such as ailanthus, bush honeysuckle, autumn olive, barberry, privet, multi-flora rose, stilt grass, garlic mustard & others as found.
12. Discourage trespass, littering, & use of the property without permission.
13. Maintain eligibility for the CAUV agricultural tax abatement program.
14. Manage the property to create and maintain attractive and value added real estate.
15. Keep & maintain positive relations with neighbors & the community.

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

Owner George H. Fetterolf  
Address 2290 E.Beachside Lane  
Vero Beach, FL 32963  
Phone 772-713-5693 Case Number 05-  
County Athens Township/Village/City: Dover Township  
Location: Property Address: Pts of Sections 1,2,3,7,8,9FR 3  
Dover Township, Athens County, State of Ohio (See parcel # list in plan)  
Contact : George H. Fetterolf  
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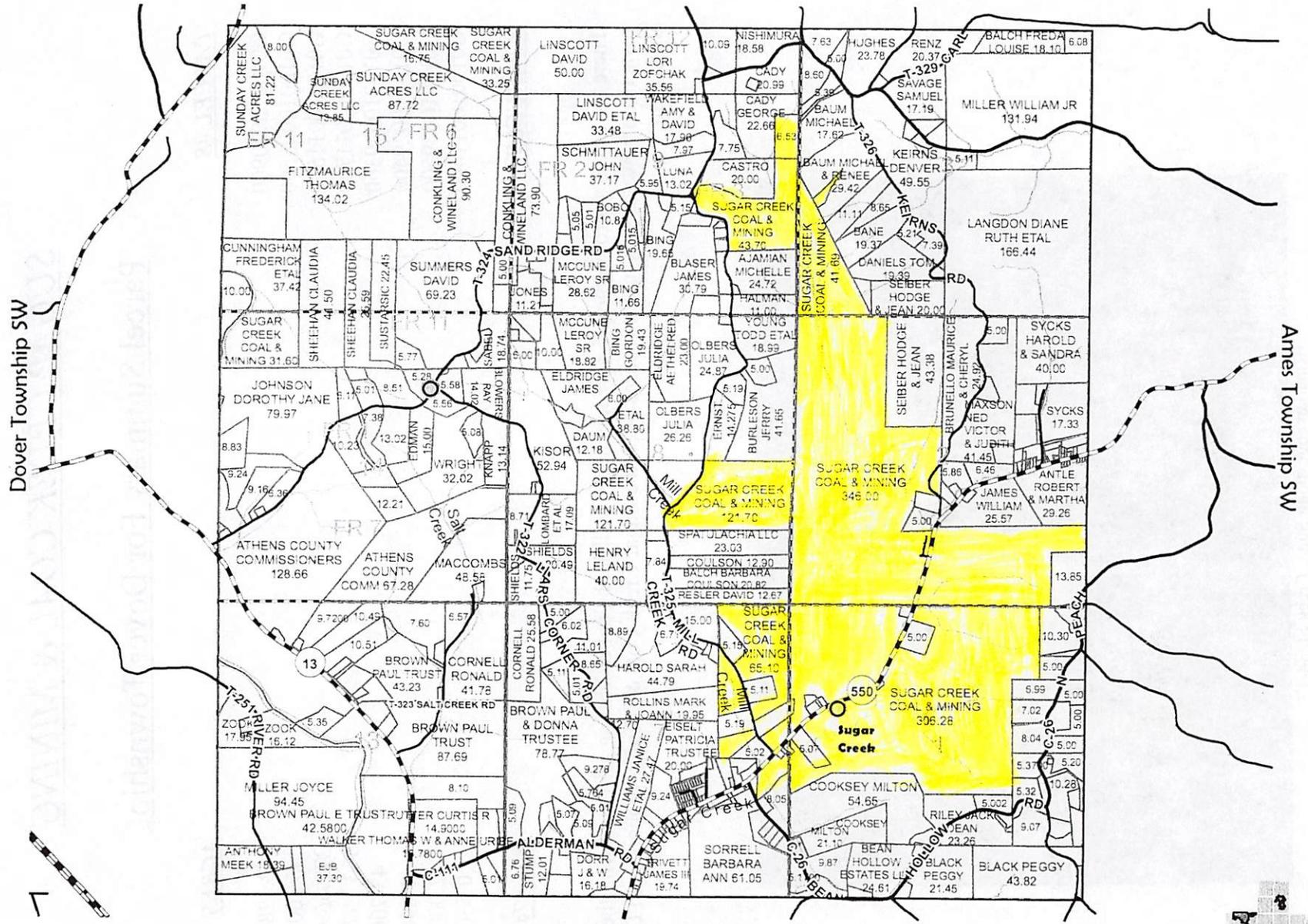
### **Landowner Objectives**

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3. Generate wood products & income.
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8. Identify, protect & preserve unique natural features, cultural, archeological & historic.
9. Maintain and improve access corridors.
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11. Identify, discourage & control invasive species such as ailanthus, bush honeysuckle, autumn olive, barberry, privet, multi-flora rose, stilt grass, garlic mustard & others as found.
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13. Maintain eligibility for the CAUV agricultural tax abatement program.
14. Manage the property to create and maintain attractive and value added real estate.
15. Keep & maintain positive relations with neighbors & the community.

## ***General Woodland Description***

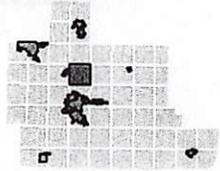
This large property contains impressive woodland potentials. Stands 1 thru 20 ranges from sawlog stands with mature forest conditions, recently harvested understocked stands, mid-early successional areas and hodgepodge inclusions within the overall forest. Important riparian factors along Sugar Creek, recently logged over areas, patches of sawlog, pole, sapling and scattered coarse dominants, reverting fields and open areas can be found. Species mix is good, access is reasonable to difficult requiring maintenance due to steep slopes and drainages. Trails in recently harvested areas provide good access and were mostly closed out well with water bars and BMPS. Spectacular history can be found with old abandoned and occupied homesites, remnants of historical mining activity, reverting agricultural areas and the footprint of a major coal mining community of great historical interest regionally. Utility corridors impact some of the stands including electrical distribution lines and Tennessee gas pipeline. An estimated 7 acres is consumed by gas pipeline. The electrical lines are maintained with a narrow corridor blending into the neighboring stands as they appear to be distribution lines for local use. Growing sites range from excellent to average with site indices for red oak ranging from 86 to 65. A majority of the sites fall in the high or excellent site indices indicating potentials for forest improvement and development. Commendable forestry interest exists with management goals. Professional foresters have been involved with recommendations for management for at least the last 20 years. Historically much of the land was working hill farm typical of the region along with mineral extraction. Woodlands were no doubt impacted from a past history of livestock production, agriculture, mining and homesites. No traditional agriculture is currently taking place. Species mix of trees is excellent and consists of native hardwoods and a small reclaim patch of pine in Stand 17. Deer and other wildlife abound. Edges and openings are rapidly reverting to young stands of early successional forest. Past history has not been kind to this property and it seems to have been adversely and heavily impacted by commercial high grade logging, agricultural activities and mineral extraction. Recovery of the woodland resources has been positive and ongoing with some areas responding well while others are struggling with heavy grapevines, poor quality trees, and undesirable invasive species. Some forest stands are emerging with excellent potentials and the undisturbed pristine stands illustrate what the land is capable of producing if the forests are brought under proper stewardship and management. Some commendable work has occurred in the past twenty years regarding stewardship of the property. Stocking variability and canopy gaps are found in the mix however the forest is filling in nicely with generally desirable trees. Topography is typical of the region with all aspects represented on the property. The understory is rich with native plants however invasive species as is typical of the region are filtering into the mix with various degrees of infestation. Bottomland and riparian areas have a vital water quality influence that can complement landowner objectives and could prove to be quite unique, valuable and important wildlife habitat as well as productive growing sites for trees. Geological features abound with rock outcroppings, slump blocks and exposed areas. Boundary lines are in various stages of demarcation and need to be remarked. Woodland improvement projects prior to any future timber harvesting would make excellent value added opportunities. Potentials to grow quality woodland and meet goals and objectives are very favorable. Evidence of past land use can be found testifying to the rich history of agriculture and mineral extraction that took place. Ash trees have become inconsequential due to mortality from Emerald Ash Borer. Trespass and surface littering was noted however no major issues were observed. There is much road frontage however steep topography and Sugar Creek/Mill Creek make for difficult access. Water resources are impressive with frontage on Sugar Creek, Mill Creek and tributaries. Water quality and Sugar Creek and Mill Creek ecology should be an overriding consideration regarding the regional impacts of this property. This forest management plan captures the Dover Township, Sugar Creek Coal & Mining Company land parcels.

Dover Township NE



39

Athens Township NE  
**Dover Township SE**  
 T-10-N / R-14-W

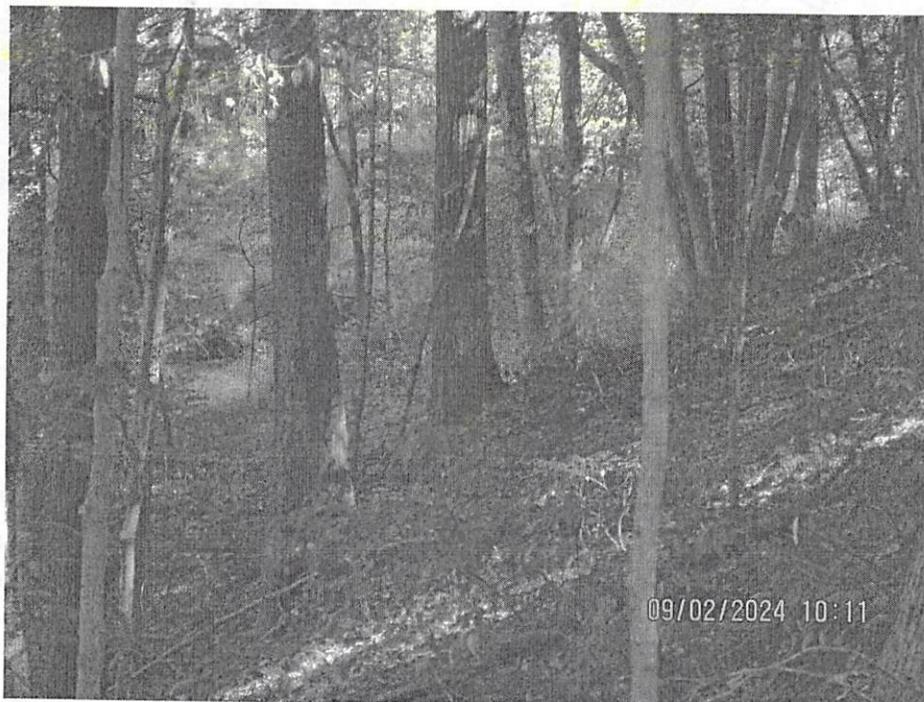


# SUGAR CREEK COAL & MINING

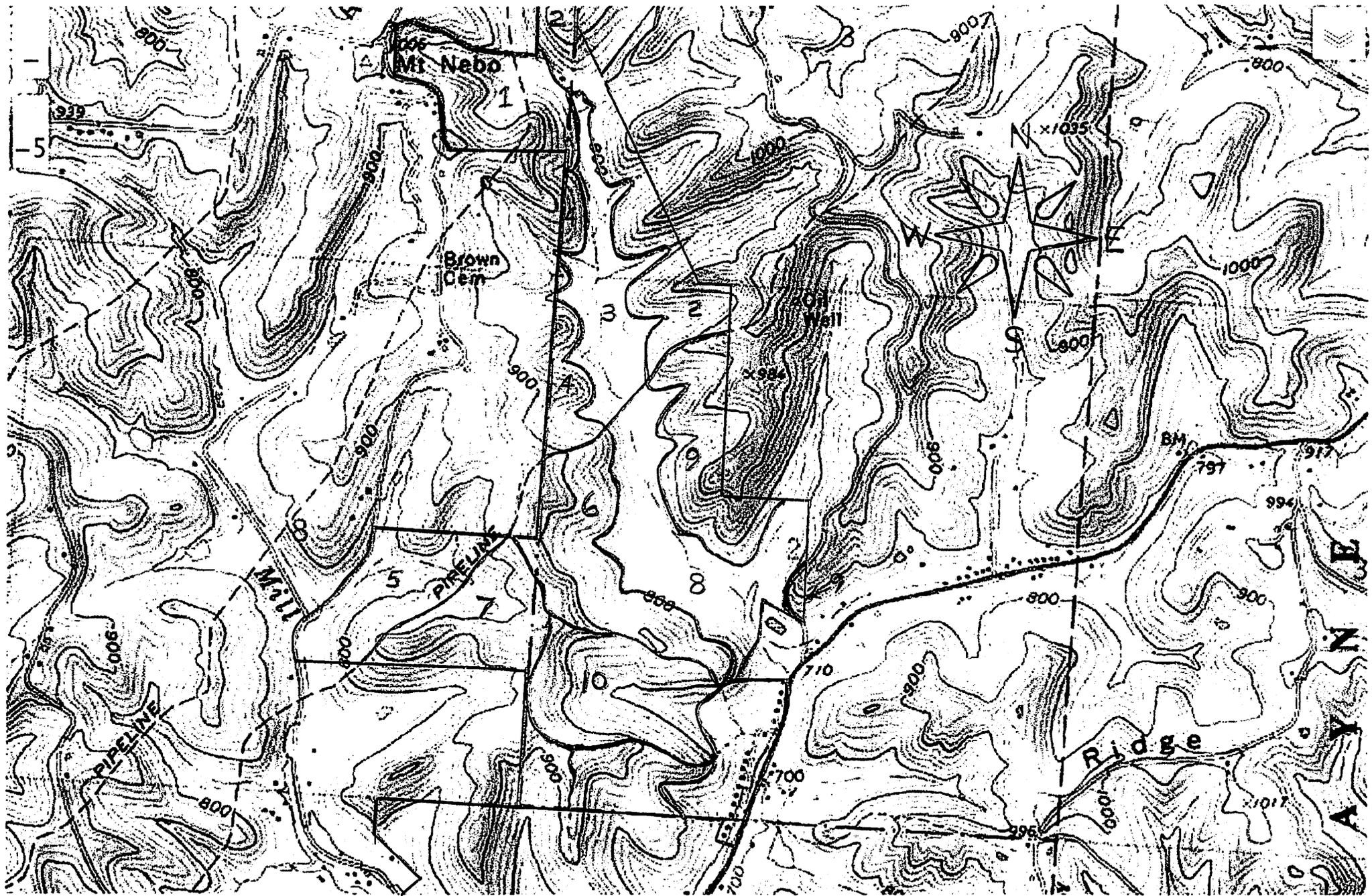
## Parcel Summary For Dover Township

<u>PARCEL #S</u>	<u>ACRES</u>
G010010030900	62.328
G010010005500	65.100
G010010011500	272.569
G010010011700	333.157
G010010029300	43.700
G010010029400	41.690
G010010029500	2.000
G010010011400	0.530
<b><u>8 PARCELS</u></b>	<b><u>826.074</u></b>

There are also 6 approximately 5 acre lots under Millfield Coal & Mining affiliated with the overall ownership however this report focuses upon the Sugar Creek Coal & Mining properties in Dover Township.

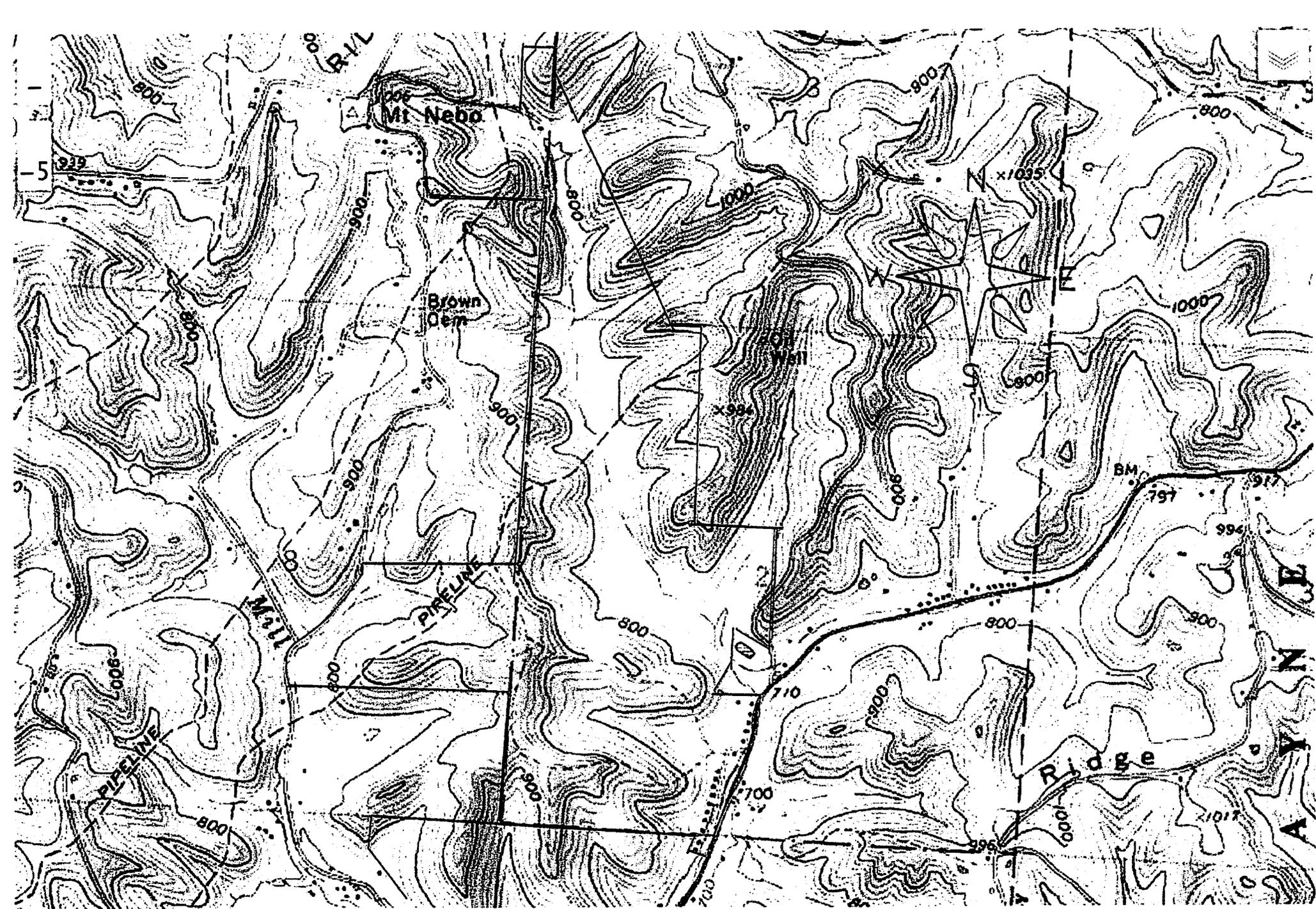


Riparian edge along Sugar Creek Stand-17

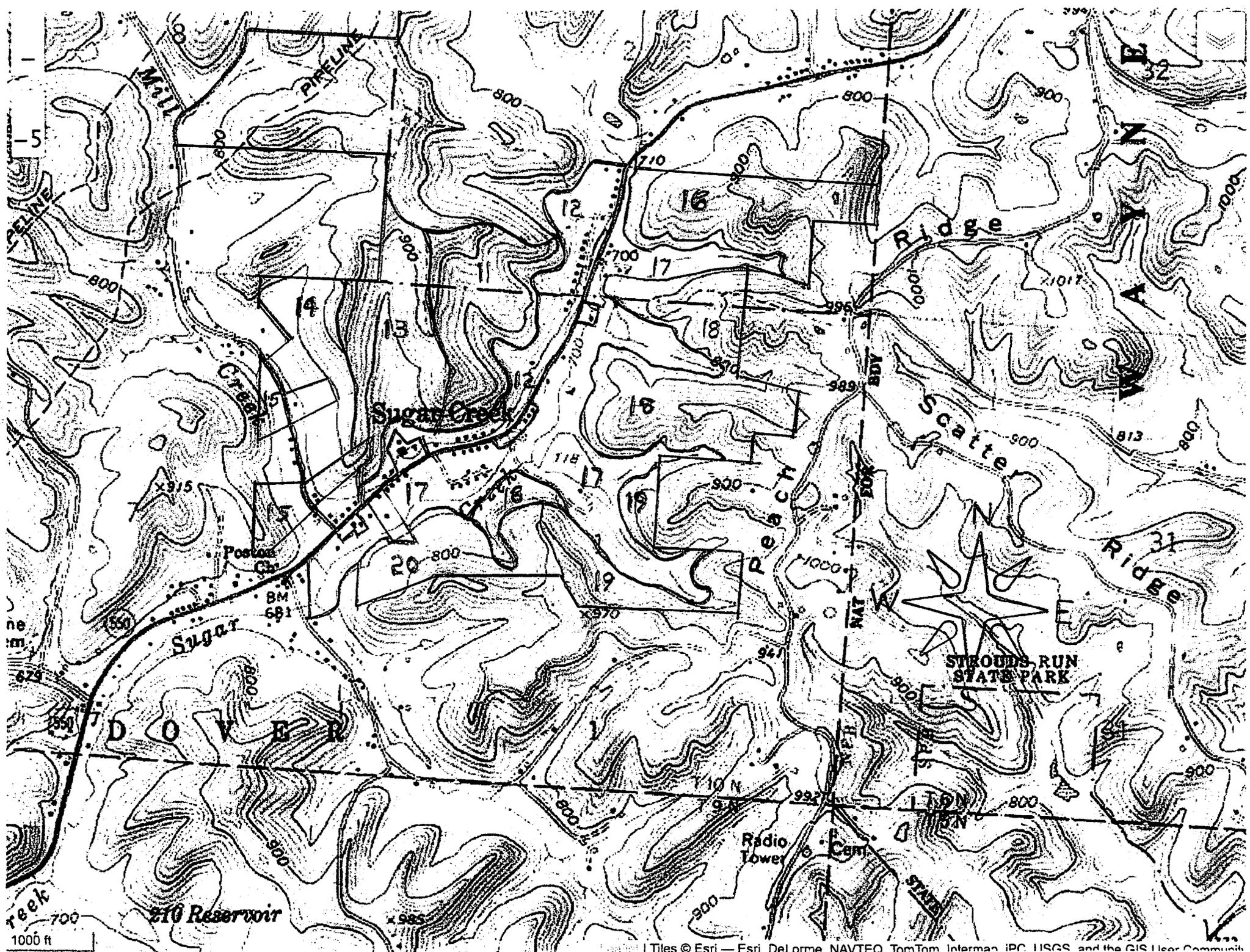


L ~ Boundary  
 9 ~ Stand

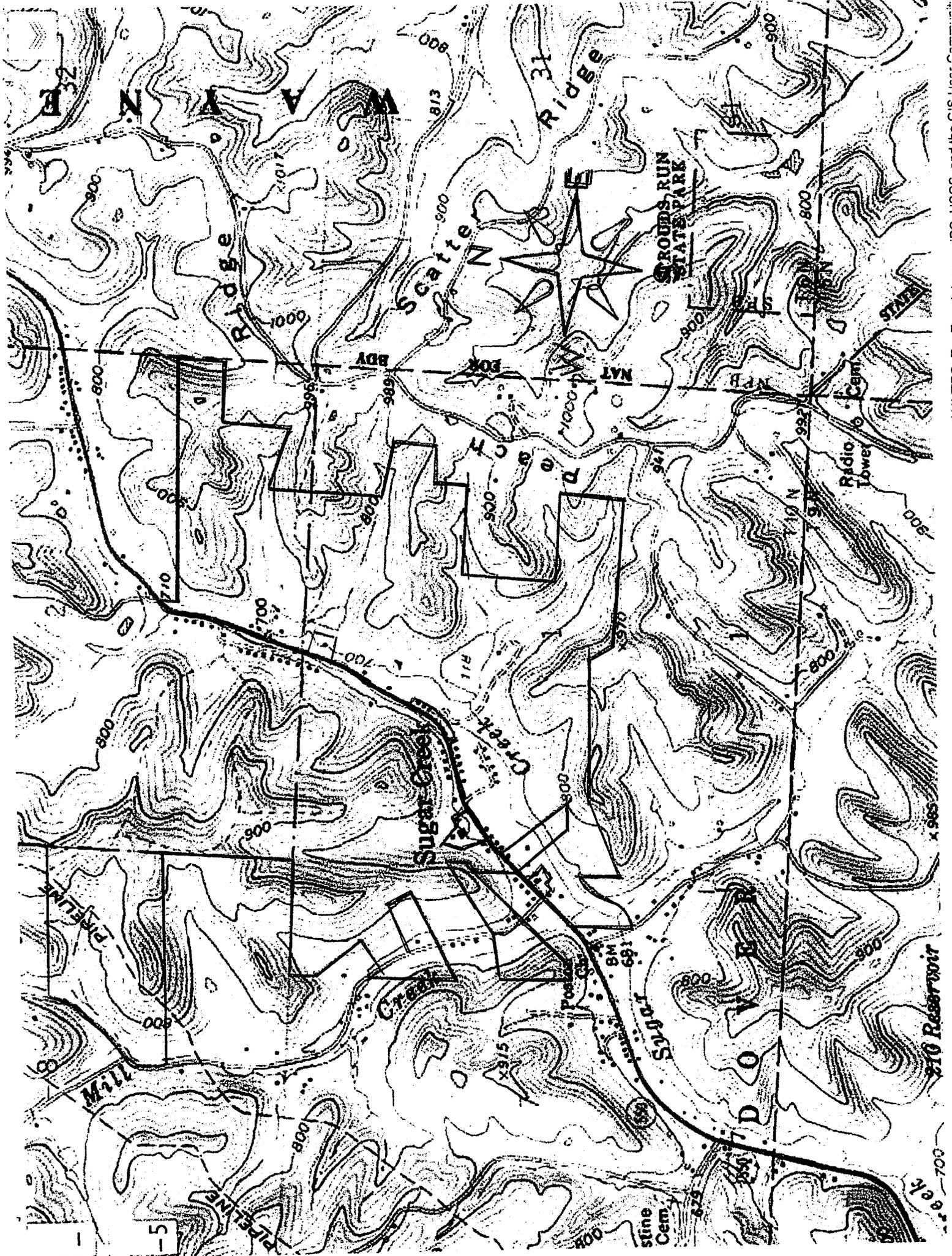
1000 ft



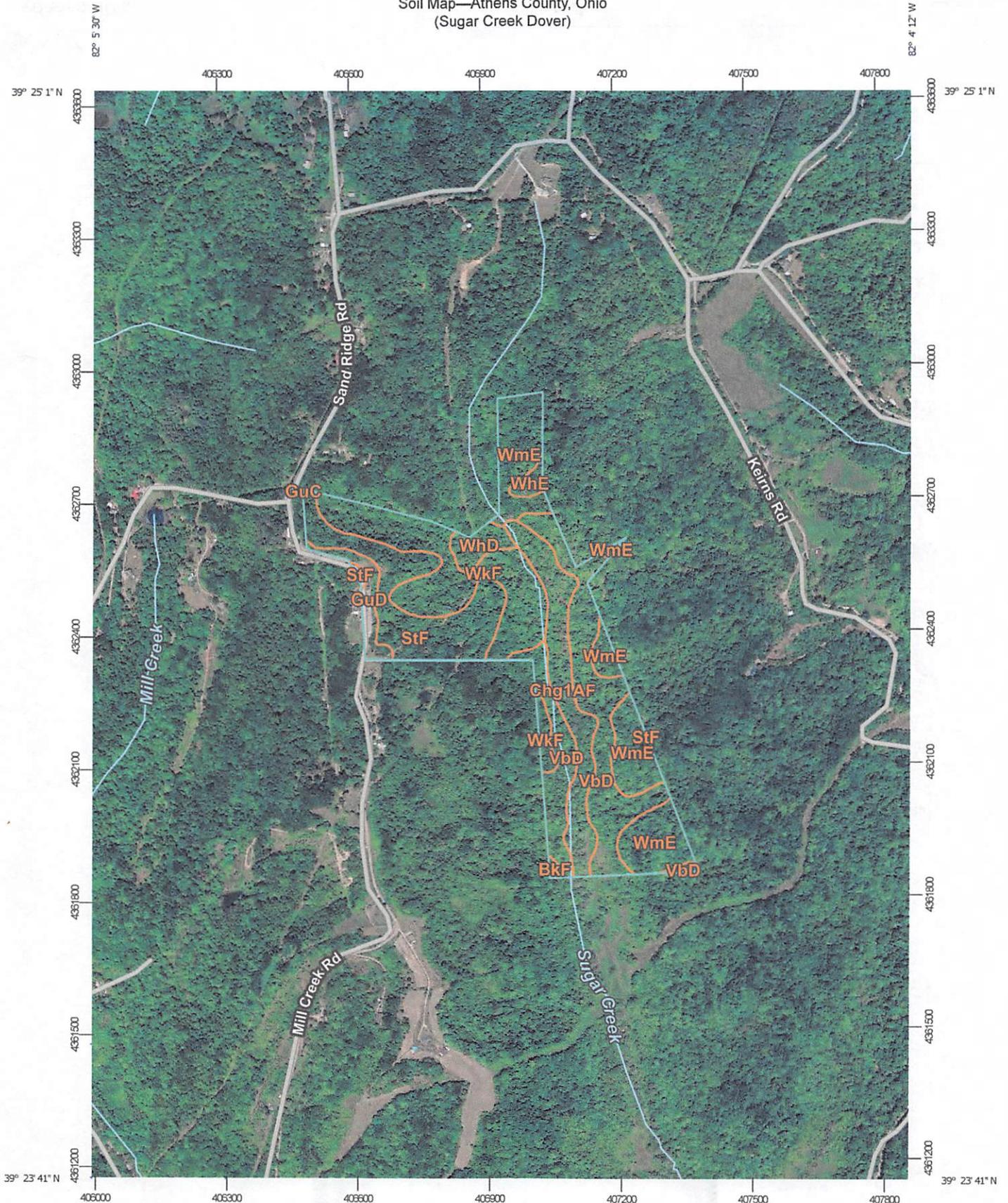
1000 ft



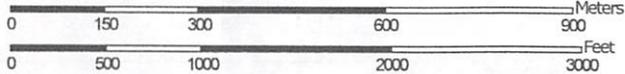
1000 ft



Soil Map—Athens County, Ohio  
(Sugar Creek Dover)



Map Scale: 1:12,000 if printed on A portrait (8.5" x 11") sheet.



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
BkF	Berks-Westmoreland silt loams, 40 to 70 percent slopes	0.3	0.3%
Chg1AF	Chagrin silt loam, 0 to 3 percent slopes, frequently flooded	10.7	12.6%
GuC	Guernsey-Upshur complex, 8 to 15 percent slopes	0.0	0.0%
GuD	Guernsey-Upshur complex, 15 to 25 percent slopes	2.6	3.1%
StF	Steinsburg sandy loam, 40 to 70 percent slopes	13.6	16.1%
VbD	Vandalia-Brookside complex, 15 to 25 percent slopes	20.3	23.9%
WhD	Westmoreland-Guernsey silt loams, 15 to 25 percent slopes	2.2	2.6%
WhE	Westmoreland-Guernsey silt loams, 25 to 40 percent slopes	0.9	1.0%
WkF	Westmoreland-Guernsey silt loams, benched, 40 to 70 percent slopes	17.4	20.5%
WmE	Westmoreland-Upshur complex, 25 to 40 percent slopes	16.8	19.8%
<b>Totals for Area of Interest</b>		<b>84.9</b>	<b>100.0%</b>

Soil Map—Athens County, Ohio  
(Sugar Creek Dover)

**MAP LEGEND**

**Area of Interest (AOI)**

 Area of Interest (AOI)

**Soils**

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

**Special Point Features**

 Blowout

 Borrow Pit

 Clay Spot

 Closed Depression

 Gravel Pit

 Gravelly Spot

 Landfill

 Lava Flow

 Marsh or swamp

 Mine or Quarry

 Miscellaneous Water

 Perennial Water

 Rock Outcrop

 Saline Spot

 Sandy Spot

 Severely Eroded Spot

 Sinkhole

 Slide or Slip

 Sodic Spot

 Spoil Area

 Stony Spot

 Very Stony Spot

 Wet Spot

 Other

 Special Line Features

**Water Features**

 Streams and Canals

**Transportation**

 Rails

 Interstate Highways

 US Routes

 Major Roads

 Local Roads

**Background**

 Aerial Photography

**MAP INFORMATION**

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

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

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

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

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

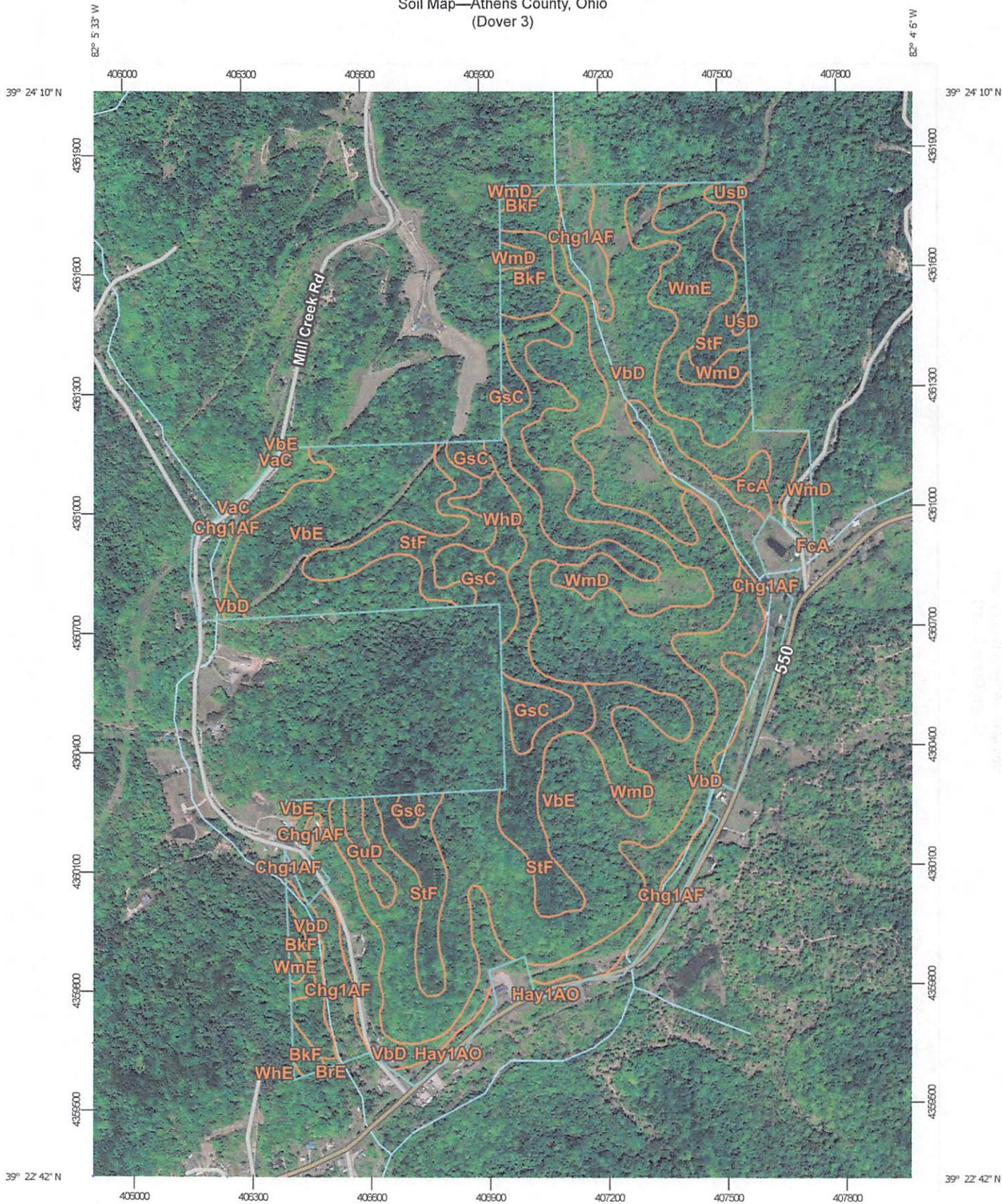
Soil Survey Area: Athens County, Ohio  
Survey Area Data: Version 25, Aug 31, 2023

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

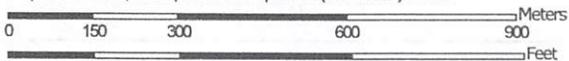
Date(s) aerial images were photographed: May 21, 2023—Aug 19, 2023

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

Soil Map—Athens County, Ohio  
(Dover 3)



Map Scale: 1:13,300 if printed on A portrait (8.5" x 11") sheet.



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



### MAP LEGEND

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

### MAP INFORMATION

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

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

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

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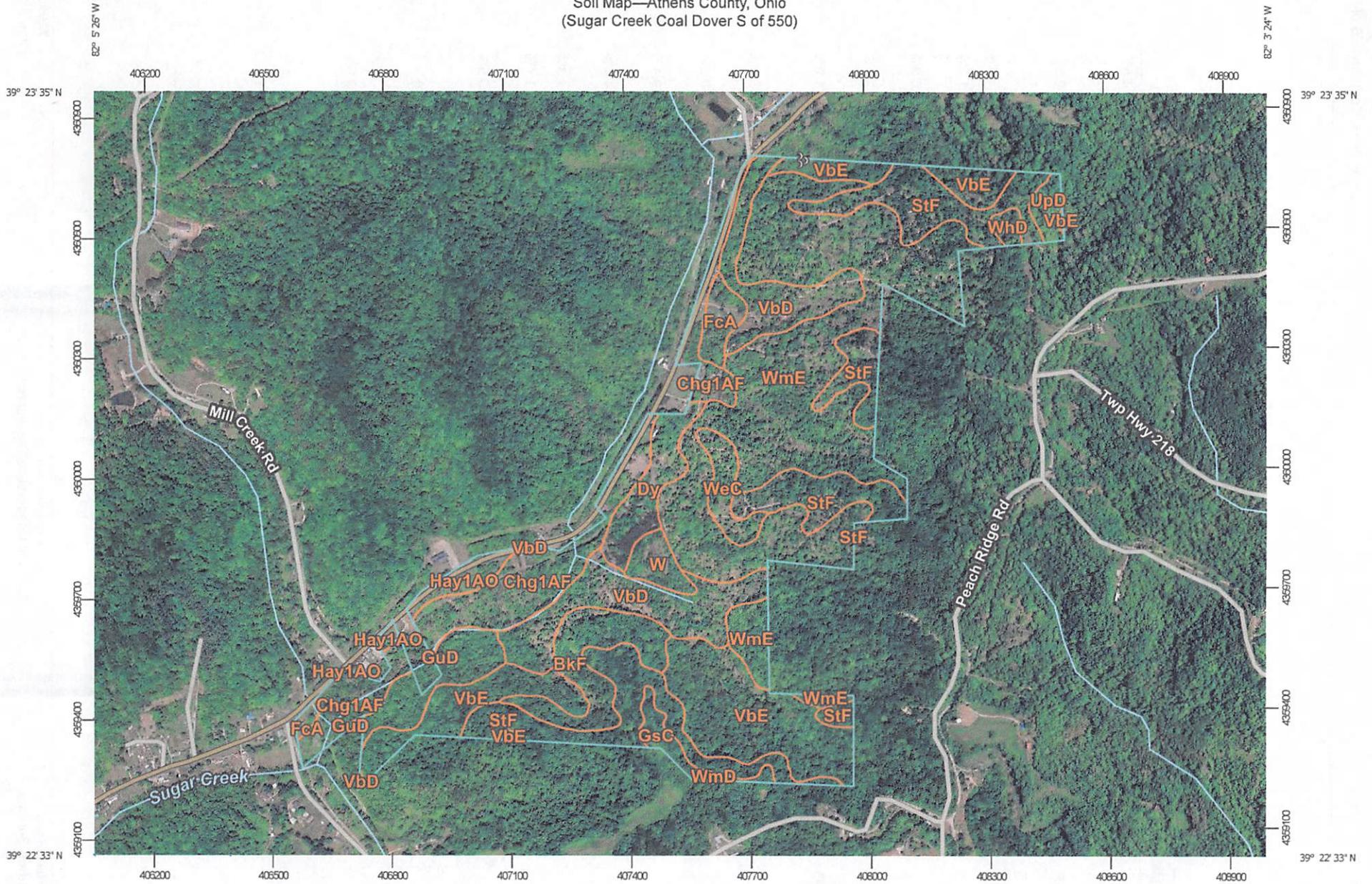
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The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

## Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
BkF	Berks-Westmoreland silt loams, 40 to 70 percent slopes	10.4	2.2%
BrE	Brookside silt loam, 25 to 40 percent slopes	0.2	0.0%
Chg1AF	Chagrin silt loam, 0 to 3 percent slopes, frequently flooded	47.8	10.3%
FcA	Fitchville silt loam, 0 to 3 percent slopes	3.0	0.6%
GsC	Guernsey silt loam, 8 to 15 percent slopes	13.5	2.9%
GuD	Guernsey-Upshur complex, 15 to 25 percent slopes	3.1	0.7%
Hay1AO	Haymond silt loam, 0 to 3 percent slopes, occasionally flooded	3.6	0.8%
StF	Steinsburg sandy loam, 40 to 70 percent slopes	59.3	12.7%
UsD	Upshur-Elba silty clay loams, 15 to 25 percent slopes	2.3	0.5%
VaC	Vandalia silty clay loam, 8 to 15 percent slopes	0.1	0.0%
VbD	Vandalia-Brookside complex, 15 to 25 percent slopes	91.1	19.6%
VbE	Vandalia-Brookside complex, 25 to 40 percent slopes	165.7	35.6%
WhD	Westmoreland-Guernsey silt loams, 15 to 25 percent slopes	5.1	1.1%
WhE	Westmoreland-Guernsey silt loams, 25 to 40 percent slopes	0.1	0.0%
WmD	Westmoreland-Upshur complex, 15 to 25 percent slopes	38.2	8.2%
WmE	Westmoreland-Upshur complex, 25 to 40 percent slopes	22.1	4.7%
<b>Totals for Area of Interest</b>		<b>465.5</b>	<b>100.0%</b>

Soil Map—Athens County, Ohio  
(Sugar Creek Coal Dover S of 550)



Map Scale: 1:13,400 if printed on A landscape (11" x 8.5") sheet.

0 150 300 600 900 Meters

0 500 1000 2000 3000 Feet

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
BkF	Berks-Westmoreland silt loams, 40 to 70 percent slopes	12.9	4.5%
Chg1AF	Chagrin silt loam, 0 to 3 percent slopes, frequently flooded	30.4	10.5%
Dy	Dumps, mine	8.6	3.0%
FcA	Fitchville silt loam, 0 to 3 percent slopes	4.7	1.6%
GsC	Guernsey silt loam, 8 to 15 percent slopes	2.7	0.9%
GuD	Guernsey-Upshur complex, 15 to 25 percent slopes	8.9	3.1%
Hay1AO	Haymond silt loam, 0 to 3 percent slopes, occasionally flooded	4.3	1.5%
StF	Steinsburg sandy loam, 40 to 70 percent slopes	45.2	15.6%
UpD	Upshur silty clay loam, 15 to 25 percent slopes	2.5	0.9%
VbD	Vandalia-Brookside complex, 15 to 25 percent slopes	30.1	10.4%
VbE	Vandalia-Brookside complex, 25 to 40 percent slopes	41.7	14.4%
W	Water	3.8	1.3%
WeC	Westmore silt loam, 8 to 15 percent slopes	5.1	1.7%
WhD	Westmoreland-Guernsey silt loams, 15 to 25 percent slopes	1.4	0.5%
WmD	Westmoreland-Upshur complex, 15 to 25 percent slopes	0.9	0.3%
WmE	Westmoreland-Upshur complex, 25 to 40 percent slopes	86.5	29.9%
<b>Totals for Area of Interest</b>		<b>289.8</b>	<b>100.0%</b>

Soil Map—Athens County, Ohio  
(Sugar Creek Coal Dover S of 550)

**MAP LEGEND**

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

**MAP INFORMATION**

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

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

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

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

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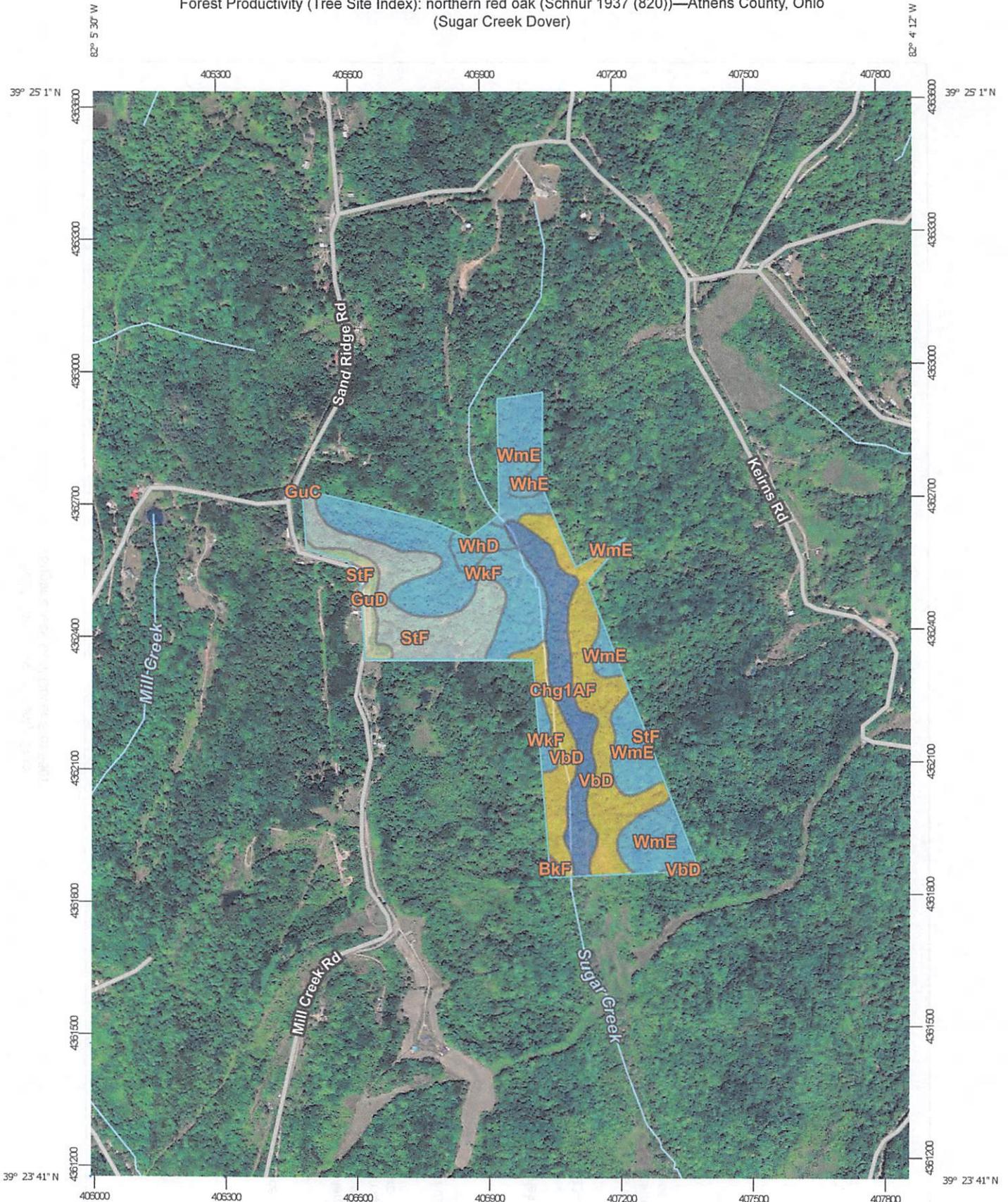
Soil Survey Area: Athens County, Ohio  
Survey Area Data: Version 25, Aug 31, 2023

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

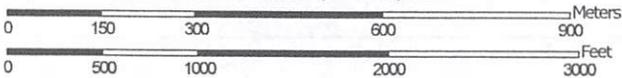
Date(s) aerial images were photographed: May 21, 2023—Aug 19, 2023

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

Forest Productivity (Tree Site Index): northern red oak (Schnur 1937 (820))—Athens County, Ohio  
(Sugar Creek Dover)



Map Scale: 1:12,000 if printed on A portrait (8.5" x 11") sheet.



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

## MAP LEGEND

### Area of Interest (AOI)

 Area of Interest (AOI)

### Soils

#### Soil Rating Polygons

 <= 70  
 > 70 and <= 77  
 > 77 and <= 78  
 > 78 and <= 81  
 > 81 and <= 86  
 Not rated or not available

#### Soil Rating Lines

 <= 70  
 > 70 and <= 77  
 > 77 and <= 78  
 > 78 and <= 81  
 > 81 and <= 86  
 Not rated or not available

#### Soil Rating Points

 <= 70  
 > 70 and <= 77  
 > 77 and <= 78  
 > 78 and <= 81  
 > 81 and <= 86  
 Not rated or not available

### Water Features

 Streams and Canals

### Transportation

 Rails  
 Interstate Highways  
 US Routes  
 Major Roads  
 Local Roads

### Background

 Aerial Photography

## MAP INFORMATION

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

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

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

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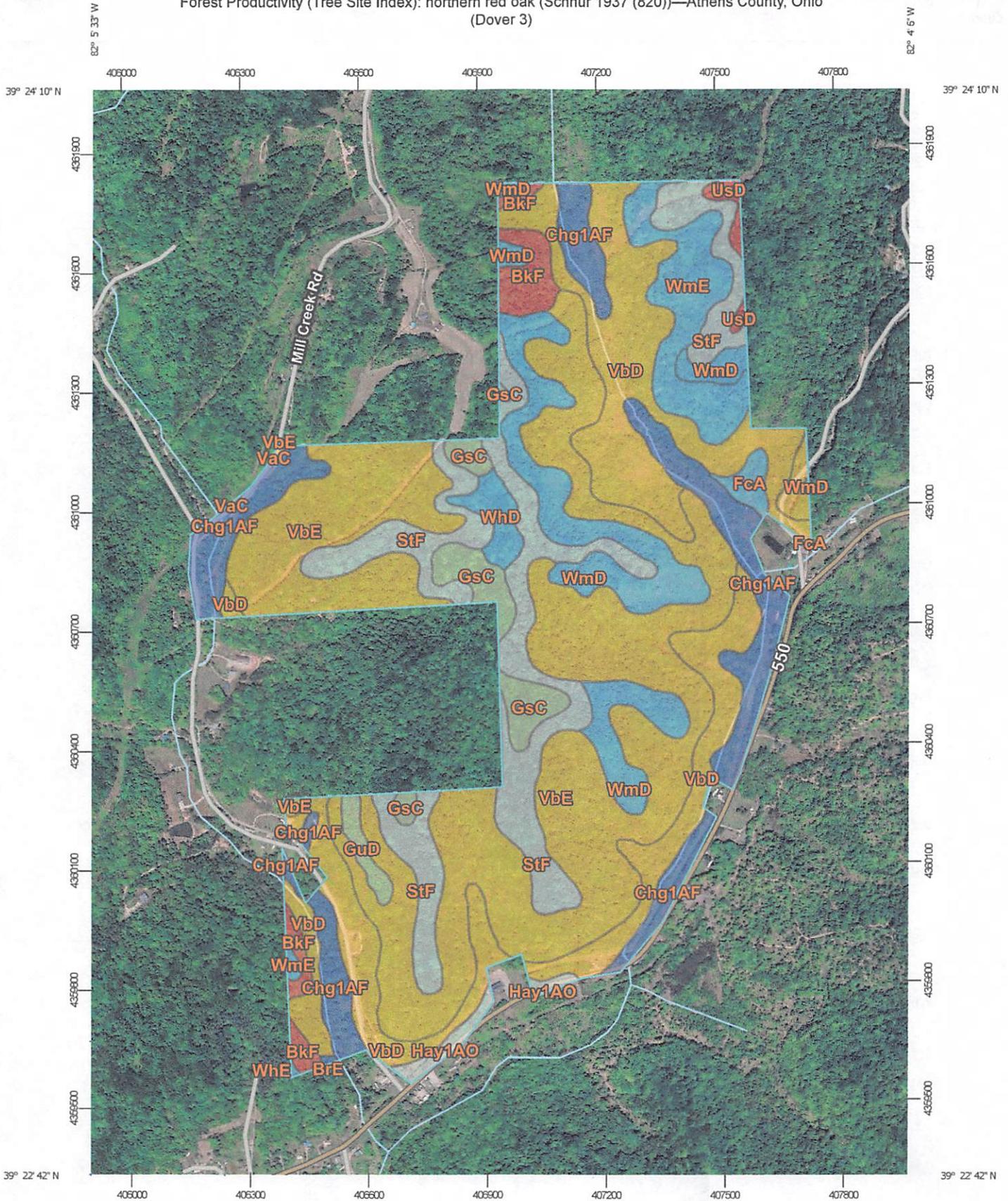
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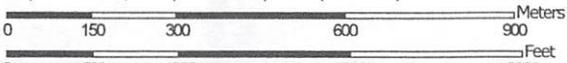
## Forest Productivity (Tree Site Index): northern red oak (Schnur 1937 (820))

Map unit symbol	Map unit name	Rating (feet)	Acres in AOI	Percent of AOI
BkF	Berks-Westmoreland silt loams, 40 to 70 percent slopes	70	0.3	0.3%
Chg1AF	Chagrin silt loam, 0 to 3 percent slopes, frequently flooded	86	10.7	12.6%
GuC	Guernsey-Upshur complex, 8 to 15 percent slopes	78	0.0	0.0%
GuD	Guernsey-Upshur complex, 15 to 25 percent slopes	78	2.6	3.1%
SIF	Steinsburg sandy loam, 40 to 70 percent slopes		13.6	16.1%
VbD	Vandalia-Brookside complex, 15 to 25 percent slopes	77	20.3	23.9%
WhD	Westmoreland-Guernsey silt loams, 15 to 25 percent slopes	81	2.2	2.6%
WhE	Westmoreland-Guernsey silt loams, 25 to 40 percent slopes	81	0.9	1.0%
WkF	Westmoreland-Guernsey silt loams, benched, 40 to 70 percent slopes	81	17.4	20.5%
WmE	Westmoreland-Upshur complex, 25 to 40 percent slopes	81	16.8	19.8%
<b>Totals for Area of Interest</b>			<b>84.9</b>	<b>100.0%</b>

Forest Productivity (Tree Site Index): northern red oak (Schnur 1937 (820))—Athens County, Ohio  
(Dover 3)



Map Scale: 1:13,300 if printed on A portrait (8.5" x 11") sheet.



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

## 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
BkF	Berks-Westmoreland silt loams, 40 to 70 percent slopes	70	10.4	2.2%
BrE	Brookside silt loam, 25 to 40 percent slopes	86	0.2	0.0%
Chg1AF	Chagrin silt loam, 0 to 3 percent slopes, frequently flooded	86	47.8	10.3%
FcA	Fitchville silt loam, 0 to 3 percent slopes	80	3.0	0.6%
GsC	Guernsey silt loam, 8 to 15 percent slopes	78	13.5	2.9%
GuD	Guernsey-Upshur complex, 15 to 25 percent slopes	78	3.1	0.7%
Hay1AO	Haymond silt loam, 0 to 3 percent slopes, occasionally flooded		3.6	0.8%
StF	Steinsburg sandy loam, 40 to 70 percent slopes		59.3	12.7%
UsD	Upshur-Elba silty clay loams, 15 to 25 percent slopes	70	2.3	0.5%
VaC	Vandalia silty clay loam, 8 to 15 percent slopes	77	0.1	0.0%
VbD	Vandalia-Brookside complex, 15 to 25 percent slopes	77	91.1	19.6%
VbE	Vandalia-Brookside complex, 25 to 40 percent slopes	77	165.7	35.6%
WhD	Westmoreland-Guernsey silt loams, 15 to 25 percent slopes	81	5.1	1.1%
WhE	Westmoreland-Guernsey silt loams, 25 to 40 percent slopes	81	0.1	0.0%
WmD	Westmoreland-Upshur complex, 15 to 25 percent slopes	81	38.2	8.2%

Map unit symbol	Map unit name	Rating (feet)	Acres in AOI	Percent of AOI
WmE	Westmoreland-Upshur complex, 25 to 40 percent slopes	81	22.1	4.7%
<b>Totals for Area of Interest</b>			<b>465.5</b>	<b>100.0%</b>

## Description

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

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

## Rating Options

*Units of Measure:* feet

*Tree:* northern red oak

*Site Index Base:* Schnur 1937 (820)

*Aggregation Method:* Dominant Component

*Component Percent Cutoff:* None Specified

*Tie-break Rule:* Higher

*Interpret Nulls as Zero:* No

## MAP LEGEND

### Area of Interest (AOI)

 Area of Interest (AOI)

### Soils

#### Soil Rating Polygons

-  <= 70
-  > 70 and <= 77
-  > 77 and <= 78
-  > 78 and <= 81
-  > 81 and <= 86
-  Not rated or not available

#### Soil Rating Lines

-  <= 70
-  > 70 and <= 77
-  > 77 and <= 78
-  > 78 and <= 81
-  > 81 and <= 86
-  Not rated or not available

#### Soil Rating Points

-  <= 70
-  > 70 and <= 77
-  > 77 and <= 78
-  > 78 and <= 81
-  > 81 and <= 86
-  Not rated or not available

### Water Features

 Streams and Canals

### Transportation

-  Rails
-  Interstate Highways
-  US Routes
-  Major Roads
-  Local Roads

### Background

 Aerial Photography

## MAP INFORMATION

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

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

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

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

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

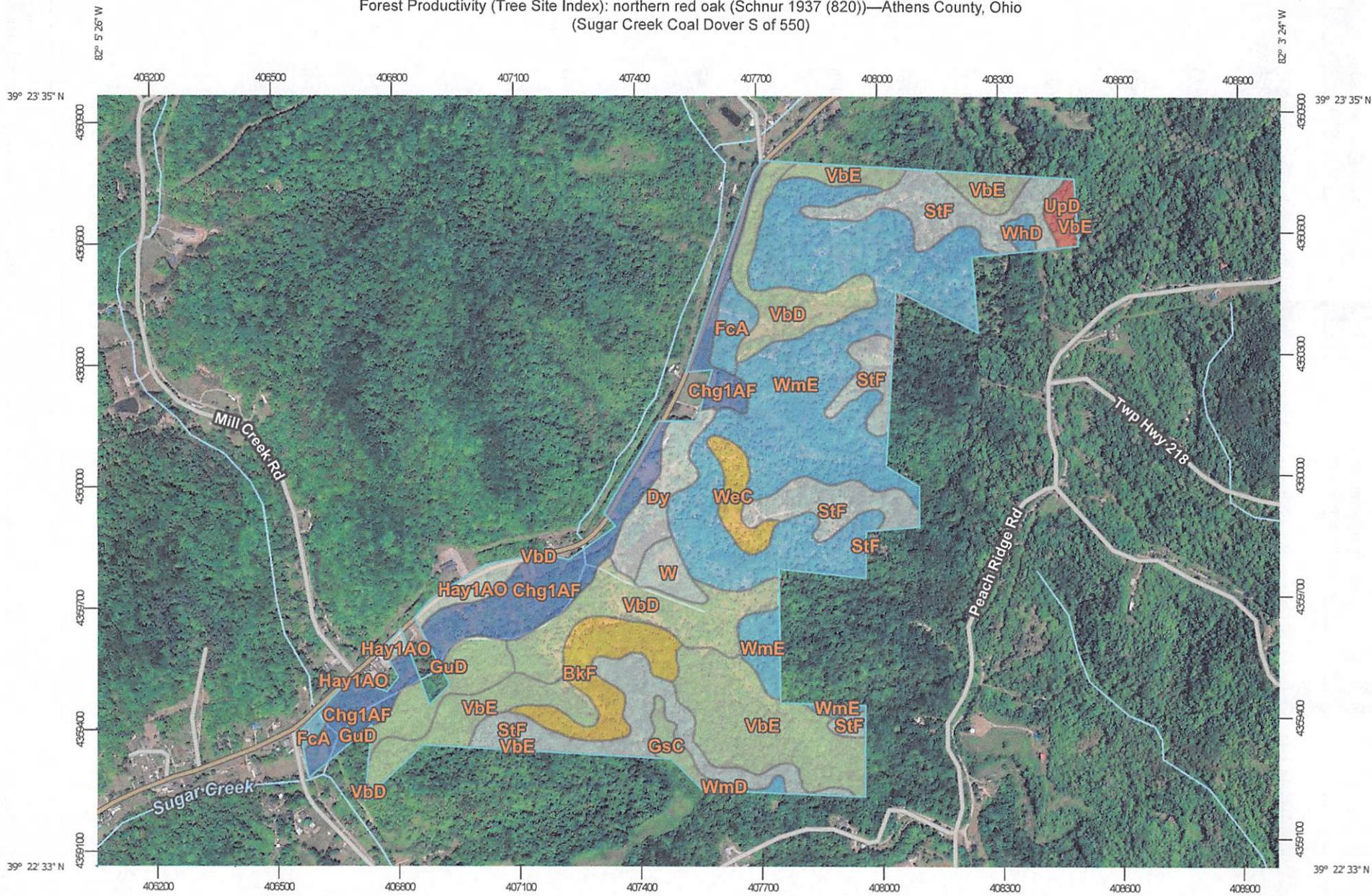
Soil Survey Area: Athens County, Ohio  
Survey Area Data: Version 25, Aug 31, 2023

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

Date(s) aerial images were photographed: May 21, 2023—Aug 19, 2023

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

Forest Productivity (Tree Site Index): northern red oak (Schnur 1937 (820))—Athens County, Ohio  
(Sugar Creek Coal Dover S of 550)



Map Scale: 1:13,400 if printed on A landscape (11" x 8.5") sheet.

0 150 300 600 900 Meters

0 500 1000 2000 3000 Feet

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

## 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
BkF	Berks-Westmoreland silt loams, 40 to 70 percent slopes	70	12.9	4.5%
Chg1AF	Chagrin silt loam, 0 to 3 percent slopes, frequently flooded	86	30.4	10.5%
Dy	Dumps, mine		8.6	3.0%
FcA	Fitchville silt loam, 0 to 3 percent slopes	80	4.7	1.6%
GsC	Guernsey silt loam, 8 to 15 percent slopes	78	2.7	0.9%
GuD	Guernsey-Upshur complex, 15 to 25 percent slopes	78	8.9	3.1%
Hay1AO	Haymond silt loam, 0 to 3 percent slopes, occasionally flooded		4.3	1.5%
StF	Steinsburg sandy loam, 40 to 70 percent slopes		45.2	15.6%
UpD	Upshur silty clay loam, 15 to 25 percent slopes	65	2.5	0.9%
VbD	Vandalia-Brookside complex, 15 to 25 percent slopes	77	30.1	10.4%
VbE	Vandalia-Brookside complex, 25 to 40 percent slopes	77	41.7	14.4%
W	Water		3.8	1.3%
WeC	Westmore silt loam, 8 to 15 percent slopes	68	5.1	1.7%
WhD	Westmoreland-Guernsey silt loams, 15 to 25 percent slopes	81	1.4	0.5%
WmD	Westmoreland-Upshur complex, 15 to 25 percent slopes	81	0.9	0.3%
WmE	Westmoreland-Upshur complex, 25 to 40 percent slopes	81	86.5	29.9%
<b>Totals for Area of Interest</b>			<b>289.8</b>	<b>100.0%</b>

## MAP LEGEND

### Area of Interest (AOI)

 Area of Interest (AOI)

### Soils

#### Soil Rating Polygons

 ≤ 65  
 > 65 and ≤ 70  
 > 70 and ≤ 78  
 > 78 and ≤ 81  
 > 81 and ≤ 86  
 Not rated or not available

#### Soil Rating Lines

 ≤ 65  
 > 65 and ≤ 70  
 > 70 and ≤ 78  
 > 78 and ≤ 81  
 > 81 and ≤ 86  
 Not rated or not available

#### Soil Rating Points

 ≤ 65  
 > 65 and ≤ 70  
 > 70 and ≤ 78  
 > 78 and ≤ 81  
 > 81 and ≤ 86  
 Not rated or not available

### Water Features

 Streams and Canals

### Transportation

 Rails  
 Interstate Highways  
 US Routes  
 Major Roads  
 Local Roads

### Background

 Aerial Photography

## MAP INFORMATION

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

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

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

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

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

Soil Survey Area: Athens County, Ohio

Survey Area Data: Version 25, Aug 31, 2023

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

Date(s) aerial images were photographed: May 21, 2023—Aug 19, 2023

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

		KEY TO SPECIES LIST		
AIL	AILANTHUS		APP	APPLE
ASP	ASPEN		BASS	BASSWOOD
BE	BEECH		BC	BLACK CHERRY
BG	BLACK GUM		BH	BLACK HAW
BO	BLACK OAK		BW	BLACK WALNUT
BB	BLUE BEECH		BOX	BOXELDER
BY	BUCKEYE		BN	BUTTERNUT
CAT	CATALPA		BCY	BALD CYPRESS
CO	CHESTNUT OAK		CW	COTTONWOOD
CHINK	CHINKAPIN OAK		CUC	CUCUMBER TREE
DOG	DOGWOOD		DSC	DOMESTIC SWEET CHERRY
ERC	EASTERN RED CEDAR			
ELM	ELM		HACK	HACKBERRY
HM	HARD MAPLE		HAW	HAWTHORN
HI	HICKORY		HL	HONEY LOCUST
HO	HOLLY		HAZ	HAZELNUT
HOP	HOPHORNBEAM		IW	IRONWOOD
NP	NATIVE PINE		NS	NORWAY SPRUCE
OO	OSAGE ORANGE			
PA	PAULOWNIA		PAW	PAW PAW
PERS	PERSIMMON		PO	PIN OAK
PP	Pitch Pine			
RBUD	REDBUD		RO	RED OAK
RP	RED PINE		SLP	SHORTLEAF PINE
SASS	SASSAFRAS		SO	SCARLET OAK
SHO	SHINGLE OAK		SIL	SILVER MAPLE
SM	SOFT MAPLE		SPICE	SPICEBUSH
			SU	SUMAC
SOUR	SOURWOOD		SWO	SWAMP WHITE OAK
SYC	SYCAMORE		TP	TULIP POPLAR
WA	WHITE ASH		WIL	WILLOW
WO	WHITE OAK		WP	WHITE PINE

Invasive Species noted: Autumn olive, Japanese honeysuckle, ailanthus, Japanese stiltgrass, multiflora rose, barberry, privet, exotic bush honeysuckles, garlic mustard, Japanese knotweed, poison hemlock, paulownia, oriental bittersweet, burning bush

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

**Stand # 1 - 37.6 Acres**

**Dominant Species:** BOX, RO, BC, ELM, SM, SYC, BY, WIL, SIL, CW, HL, HM, TP, BL, BW, SPICE, RBUD, WA, SASS, BE, PAW, HI, BB, DOG, SU, WO, BG, CO, ERC, SOUR

**Forest Type - Dominant Vegetation:** Transitional hardwood blending into riparian bottomland

**Stand Diameter or Size Class:** Large Pole/Small Sawtimber Coarse Dominants

**Stocking Level:** Understocked **Basal Area:** 50 ft<sup>2</sup>/acre

**Stand History:** Mill Creek Rd frontage, light ATV use, trespass, neighbor activities, boundary line marking, access trails, agriculture/forestry, recently logged, gas pipeline, utilities, hunting

**Topography:** East facing coves, steep, rich growing sites, blends into Sugar Creek headwaters

**Present conditions for you to consider:** grapevines, shrubby invasive species, boundary line marking, patchy stocking levels, good species mix, trespass, ATV use, wildlife habitat, hunting, neighbors, utility corridors, tough access, logging trails, highest elevations in Athens County

<b>Management Recommendations:</b>	<b>Management Tasks/Year</b>	
	<b>Required</b>	<b>Year</b>
Grapevine control	Yes	2026-2027
Maintain/improve access	No	Ongoing
Invasive species control	Yes	Ongoing
Remark boundary lines with paint	Yes	2024-2025 & 2031-2032

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

**Comments:** Generally interesting & scenic containing the highest elevations in Athens County with a rich riparian corridor & stellar wildlife habitat. Access is tough better if across neighbors not directly from the ownership. Remark boundaries is highly recommended. Timber is generally pole/small sawlog size however coarse dominants can be found & provide interesting & important stabilization & aesthetics. Basal areas range from a low of 0 sq. ft. per acre to a high of 90 sq. ft. per acre. The stand is patchy & understocked on average. Nice growing stock can be found. The most immediate need would be grapevine control for forest canopy enhancement & remarking the boundary. EQIP cost sharing is a possible opportunity to accomplish grapevine & invasive species control. Timber was recently harvested & the cut was heavy leaving patches, sapling regeneration, unmerchantable coarse dominants & logging trails as well as some excellent wildlife habitat. The species mix is good. Shrubby invasives are present along with garlic mustard, stilt grass & ailanthus. Discouraging trespass with good boundaries & a management presence would be desirable however neighbor relations are also a consideration. Mill Creek Rd. frontage is an access & management consideration. Improvement work in Stand 1 would enhance the health of the forest, improve aesthetics & habitats. Stand 1 is an important ecological area worthy of attempts for improvement because it's a Sugar Creek headwaters area that will greatly influence water quality. A major maintained gas pipeline is found in Stand 1 as well as local electrical distribution lines. These maintained utility corridors are habitat diversity components & can help with access. Rich cove sites in Stand 1 can produce quality timber.

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

**Stand # 2 - 44.6 Acres**

**Dominant Species:** WO, ASP, TP, HI, HM, BC, SYC, BE, CO, SM, ELM, BO, RO, DOG, SPICE, HOP, PAW, SOUR, VP, WA, BL, BG, RBUD, HAW.

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

**Stand Diameter or Size Class:** Pole/Small/Sawtimber Coarse Dominants Patchy

**Stocking Level:** Slightly understocked **Basal Area:** 60 ft<sup>2</sup>/acre

**Stand History:** Boundary line, access corridors, recent logging, agricultural impacts from past activities. gas pipeline, hunting, mining

**Topography:** Steep mid/lower westerly slopes blending to Sugar Creek riparian, deep side drainages to Sugar Creek.

**Present conditions for you to consider:** grapevines, tough access, shrubby invasives, favor oak in mgt. options, remark boundary line, cost share possibilities, recent timber harvest, hunting, water quality, gas pipeline R-O-W, canopy structure

<b>Management Recommendations:</b>	<b>Management Tasks/Year</b>	
	<b>Required</b>	<b>Year</b>
Grapevine control	Yes	2026-2027
Maintain & improve access	No	Ongoing
Invasive species control	Yes	Ongoing
Remark boundary lines with paint	Yes	2024-2025 & 2031-2032

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

**Comments:** Stand 2 represents a pattern of woodland conditions found in the recently logged areas. Grapevine & invasive species control is always an excellent accomplishment prior to timber harvesting. Stocking levels indicate timber harvesting was patchy & left a bit of a hodgepodge pattern upon the landscape. For the most part Stand 2 is in good condition with a good species mix. Soils are productive & mostly high site index with lots of potential for quality tree growth. The understory is rich with woodland plants but invasives are encroaching. Past history indicates impacts from farming, livestock, logging & mining. Sites are depleted from this history. Favoring oak would be good. EQIP cost share opportunities are possible. Stand 2 can yield some valuable returns on the timber resource & can be developed into very productive woodland. Maintaining & improving access would be important. Property boundaries appear to be marked but faded. Remark & maintain the boundary lines. Basal areas range from 110 to 30 square feet per acre indicating variable stocking conditions. An odd boundary line configuration occurs here & might explain the hodgepodge logging pattern. Good well marked boundary helps with management & neighbor relations & would be a priority on any ownership. Mine tailings were noted however resource recovery & water quality are really improving in the Sugar Creek headwaters influenced by Stand 2. Aquatic life forms were noted & Stand 2 has great potentials for quality forest habitat. Gas pipeline R-O-W defines the south boundary of Stand 2.

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

**Stand # 3 - 31.6Acres**

**Dominant Species:** SYC, BW, BL, HL, TP, BC, PAW, CW, DOG, BE, WA, HM, HI, BASS, BB, RBUD, WIL, ASP, ELM, SPICE

**Forest Type or Dominant Vegetation:** Bottomland Hardwoods

**Stand Diameter or Size Class:** Pole/Small/Medium/Large/Sawtimber Coarse Dominants

**Stocking Level:** Understocked **Basal Area:** 50 ft<sup>2</sup>/acre

**Stand History:** Old field/pasture reverted abandoned farmland, major utility corridor, hunting, access corridors, oil & gas, mining, logging

**Topography:** Bottomland riparian gentle slopes headwaters of Sugar Creek

**Present conditions for you to consider:** Good to moderate access, hunting, good site, good area to manage for long term goals & objectives, grapevine & shrubby invasives, coarse dominants, water quality, openings, pipeline R-O-W, wildlife habitat, side drainages into Sugar Creek

<b>Management Recommendations:</b>	<b>Management Tasks/Year</b>	
	<b>Required</b>	<b>Year</b>
Grapevine control	Yes	Ongoing
Maintain & improve access	No	Ongoing
Shubby invasive control	Yes	Ongoing
Maintain openings mowing after July 15th	No	Ongoing every 3 years
Favor mast producing species of trees	No	Ongoing
Deliniate a 50 foot filter strip/Sugar Creek	No	Ongoing

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

**Comments:** EQIP cost share opportunities might be found. Stand 3 is certainly worth managing for its future potentials & stellar influence upon water quality. Buffer Sugar Creek with a undisturbed filter strip along the edges at least 50 feet wide. Favor mast species with management (oaks, hickory, walnut, black cherry, beech etc). Access is good with a central trail that should be maintained & improved. Greatest immediate concern is water quality, access, grapevine & shrubby invasives. Grapevine, & invasive species work prior to harvesting is best. Generally this is an improving area that has been depleted from historical agricultural & mining impacts. Site index for trees is exceptional Potentials to meet management goals are high & this area should not be underestimated in its ability to be highly productive. Time invested improving Stand 3 will be time well spent. If a timber harvest is conducted upon adjacent stands an entry here would have merit in order to remove damaged & diseased trees & some of the large coarse dominants scattered about as well as to improve access. Defining & improving a filter strip along Sugar Creek would have great merit. Crossing neighboring property for access & working around the major utilities can be a complicating management factor. The pipeline defines the Stands south boundary. Openings are found in Stand 3 and can be maintained as openings by mowing after July 15<sup>th</sup> at least once every 3 years. The pipeline itself is a nice opening as well. Let water quality be the overriding management objective for Stand 3.

## *Woodland Stand Description and Management Recommendations*

**Stand # 4 - 16.6 Acres**

**Dominant Species:** SYC, BW, BL, HL, TP, BC, PAW, CW, DOG, BE, HAW, WO, HI, BASS, BB, RBUD, WIL, ASP, ELM, SPICE

**Forest Type or Dominant Vegetation:** Transitional Hardwoods

**Stand Diameter or Size Class:** Large Pole/Small/Medium/Sawtimber Coarse Dominants

**Stocking Level:** understocked **Basal Area:** 50 ft<sup>2</sup>/acre

**Stand History:** Boundary line, gas pipeline, hunting, logging, agriculture, minerals

**Topography:** Lower steep easterly slopes, drainages into Sugar Creek

**Present conditions for you to consider:** Woodland & understory, invasives, grapevine, access, good growing sites, remark boundary line, coarse dominants, erosion, cost share, hunting, filter strip for Sugar Creek, gas pipeline, lower priority due to access & boundary

Management Recommendations:	Management Tasks/Year	
	Required?	Year
Maintain & improve access	No	Ongoing
Invasive species control	Yes	Ongoing
Remark & maintain boundary line	Yes	2024-2025 & 2031-32
Grapevine control	Yes	Ongoing
Filter strip buffer for Sugar Creek	No	Ongoing

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

**Comments:** A nice stand with typical incursions of invasives & grapevines. No harvest is suggested because the configuration of the topography, pipeline & property boundary create difficult access that would require more issues than the value of timber would yield. Mark boundary lines as a priority. Grapevine control & invasive species control prior to timber harvesting has great merit. Stocking levels are not good even with some large coarse dominants scattered about. Going forward let the stand mostly continue to develop with the idea that a harvest can be conducted however; harvest decision could be postponed until the next management planning cycle. Access is generally difficult. Some riparian corridor exists along side drainages & Sugar Creek these areas can be important for both wildlife & water quality issues. As is typical of the entire property utility corridors are a major factor & could influence management considerations. Soils would indicate high site indices creating some incentive to manage the forest, such that it can reach its full potential for all woodland attributes. Basal areas range from 70 to 30 square feet per acre. Drainages deserve particular attention & care because they are critical wildlife habitats, influence water quality & are sensitive to damages from erosion & upland disturbances. Forest buffers on well defined drainages have great merit & time improving riparian habitats, locating good drainage crossings & hardening sensitive sites is well spent when conducting operations near drainages. The most important management considerations this planning cycle are boundary line & Sugar Creek buffering for water quality.

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

### **Stand # 5 - 32.2 Acres**

**Dominant Species:** TP, HI, BO, WO, RO, BE, BW, SYC, HM, BC, SPICE, HAZ, CO, BY, PAW, SU, BOX, RBUD, WA, DOG, ASP, SASS, BG, ELM

**Forest Type or Dominant Vegetation:** Transitional Hardwoods

**Stand Diameter or Size Class:** Pole/Small/Medium/Large/Sawlog Coarse Dominants

**Stocking Level:** Fully stocked **Basal Area:** 80 ft<sup>2</sup>/acre

**Stand History:** Agriculture, boundary line, frontage on Mill Creek Rd, hunting, ATV use, light trespass, access, gas pipeline, power line R-O-W, logging

**Topography:** Major aspect is westerly steep, road frontage on Mill Creek Rd. drainages, riparian along Mill Creek, lower to mid slope position to gas pipeline R-O-W, rock outcrops.

**Present conditions for you to consider:** Boundary lines, good to fair access, nice species mix, oak stand, road frontage on Mill Creek Rd, aesthetics, rock exposures, ATV trails, trespass, grapevine & invasive species, high/medium site index, water quality, utility R-O-W.

<b>Management Recommendations:</b>	<b>Management Tasks/Year</b>	
	<b>Required</b>	<b>Year</b>
Remark & maintain boundary lines	Yes	2024-2025 & 2031- 2032
Maintain & improve access	No	Ongoing
Grapevine control	Yes	2026-2027
Invasive species control	Yes	Ongoing
Consider intermediate timber harvest	No	2034-2039

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

**Comments:** Boundaries should be located & marked with paint. Stand 5 is an interesting patch of woodland. The slopes are steep with benches. Timber is quite impressive in Stand 5 with good species & once across Mill Creek nice access. Stand 5 is predominately sawtimber forest with impressive potentials in the mix. Access might be difficult due to Mill Creek & the utility R-O-W. Hunting & ATV use is occurring. Stand 5 is a very worthy management opportunity & an excellent area for timber stand improvement due to its site quality & roadside location. Once boundary lines are remarked this should be a priority area along with Stand 7 to begin forest improvement work. Cultural work should include grapevine control & invasive species management. Old fence defines the north boundary & the utility corridor is the boundary between Stands 5 & 7. Mill Creek should be buffered & considered a sensitive area for water quality, wildlife & woodland ecology. The site index is high with a number of different soil types creating a diverse habitat structure & healthy forest condition. Basal area ranged from 110 to 50 with a generally fully stocked, closed canopy woodland structure. This canopy structure will help with cultural improvement practices ideally prior to any harvesting. Practices are very receptive to EQIP cost share & good results from cultural improvement work should occur.

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

**Stand # 6 - 42.7 Acres**

**Dominant Species:** HI, WA, WO, HM, BC, TP, BE, BY, RO, SM, ELM, SYC, SASS, PAW, SPICE, HL, REDB, DOG, BO, HOP, HAW, PERS, BG, ASP

**Forest Type or Dominant Vegetation:** Transitional Hardwoods

**Stand Diameter or Size Class:** Large Pole/Small/Medium/Sawtimber Coarse Dominants

**Stocking Level:** Fully stocked on average, patchy hodgepodge/open areas **Basal Area:** 80 ft<sup>2</sup>/acre

**Stand History:** Agricultural production, boundary line, logging, access, Sugar Creek & tributaries, mining, hunting, gas pipeline, recreation

**Topography:** Upland easterly facing ridges blending into bottomland, moderate/steep slopes.

**Present conditions for you to consider:** high site index, timber uplands, patchy reverting slopes, openings/field, grapevine/invasive species control, access, pipeline corridor, canopy & opening gaps, water quality, established trails, boundary line, wildlife & hunting

<b>Management Recommendations:</b>	<b>Management Tasks/Year</b>	
	<b>Required</b>	<b>Year</b>
Grapevine/Invasive control	Yes	Ongoing
Monitor for forest health/trespass	No	Ongoing
Maintain & improve access corridors	No	Ongoing
Remark boundary lines with paint	Yes	2024-2025 & 2031-2032
Consider mowing to keep open field open	No	Mow after July 15 <sup>th</sup>

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

**Comments:** Stand 6 is fully stocked with good species mix however; some areas are reverting patch/brushy openings & even open field. Generally uplands are sawlog timber blending into patchy hodgepodge areas at mid to lower elevations. There is even an open field shared with Stand 10. Grapevine & invasives are problematic. A few spots are a hodgepodge of gaps & patches in the canopy while others have a nice sawtimber component. Canopy closure & development would be a guiding principle this management cycle. Boundary should be marked & is easy to find in Stand 6. Site index is high & can be developed to meet many of the goals for the property. Grapevine control will help canopy development. Stand 6 habitat is very rich & productive for woodland & wildlife. An open area appears to be the footprint of a historical hayfield/pasture & might be considered for wildlife management or just keeping open for future options. Access corridors follow old logging trails & ridgelines & these jeep trails should be maintained as this is key to accessing Stands 6,7,10,11 &13. Pay particular attention to drainage crossings for access & water quality. This management cycle concentrate on boundary line marking, grapevine, invasive species control & maintaining access. Creating healthy forest canopy & stocking structure will help with invasives & water quality. Basal area ranged from 110 to 40 indicative of the hodgepodge patchy nature of stocking in parts of Stand 6.

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

**Stand # 7 - 33.1 Acres**

**Dominant Species:** BE, TP, HM, PAW, SPICE, WO, BASS, HI, SYC, RO, ELM, ASP, BC, BW, BO, CO, SM, WA, BL, BG, DOG, RBUD

**Forest Type or Dominant Vegetation:** Transitional Hardwoods

**Stand Diameter or Size Class:** Pole/Small/Medium/Sawlogs Coarse Dominants

**Stocking Level:** Fully stocked

**Basal Area:** 80 ft<sup>2</sup>/acre

**Stand History:** Agricultural production, logging, hunting, minerals, boundary line, utility R-O-W

**Topography:** Steep westerly aspect, ridgetop blending into coves & drainages, rock exposures.

**Present conditions for you to consider:** Site indices high, boundary line, neighbors, grapevine/invasives, access trails, trespass, rich herbaceous understory, hunting, gas pipeline, canopy structure, wildlife, high priority for projects along with Stand 5, nice woodland stand

<b>Management Recommendations:</b>	<b>Management Tasks/Year</b>	
	<b>Required</b>	<b>Year</b>
Remark boundary lines	Yes	2024-2025 & 2031-2032
Control grapevines/invasives	Yes	2026-2027
Establish & maintain access	No	Ongoing
Consider intermediate timber harvest	No	2034-2039
Favor nut producing trees & canopy health	No	Ongoing

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

**Comments:** Stand 7 is a typical example of the upland forest found in undisturbed areas north of SR 550 in the Dover Township parcels. Major disturbance has not occurred for quite some time. Access is best by utilizing the old jeep trails. Grapevines & invasive species are problematic in Stand 7 as in all stands. Developing healthy forest canopy will be helpful with the invasive problem. Controlling grapevine will improve canopy conditions. Boundary lines are sketchy & need to be remarked. Basal areas ranged from 110 to 60 illustrating a nice closed canopy forest. This stocking creates some great wildlife habitat & room for improvement culminating in a nice potential timber harvest along with Stand 5. This management cycle anything that can be done to control grapevine & invasives prior to any harvesting will be a great enhancement. Cost share with the USDA-NRCS could address the cultural needs in all stands. Boundary should be a priority for remarking & maintaining. Slopes are steep punctuated with rich coves & native understory plants. Rocky outcrops & exposures add interest. A well maintained utility corridor defines the boundary between Stand 5 & Stand 7. These two stands would be a high priority for cultural practices & are poised to respond well to any improvements. Problem plants noted include grapevine, ailanthus, privet, multiflora rose, barberry, bush honeysuckle & stilt grass. Maintain & improve jeep trail access where needed, mark the boundary & consider cultural treatments a high priority this management cycle.

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

**Stand # 8 - 51.1 Acres**

**Dominant Species:** BE, TP, HM, BASS, HAW, HL, BW, PAW, SPICE, SASS, HI, BY, SYC, HOP, DOG, WA, RO, ELM, BB, ASP, BC, SU, BO, RBUD, SIL, WIL, BOX, OO

**Forest Type or Dominant Vegetation:** Bottomland Hardwoods

**Stand Diameter or Size Class:** Openings/Sapling/Pole/Small/Medium/Sawlog Coarse Dominants

**Stocking Level:** Variable/hodgepodge      **Basal Area:** NA

**Stand History:** Agriculture, logging, hunting, minerals, boundary, utility R-O-W, access trails

**Topography:** Upper & mid sections of Sugar Creek & tributaries, gentle slopes, bottomland

**Present conditions for you to consider:** Site indices high, boundary line, neighbors, grapevine/invasives, access trails & roads, trespass, utility R-O-W, canopy structure, mining history & remnants, water quality, buffering & filter strips, open fields, hodgepodge reverting fields & patchy timber conditions, stocking variability, wildlife, hunting, aquatic habitat, history

<b>Management Recommendations:</b>	<b>Management Tasks/Year</b>	
	Required	Year
Remark boundary lines	Yes	2024-2025 & 2031-2032
Control grapevines/invasives	Yes	Ongoing
Establish & maintain access	No	Ongoing
Monitor for water quality & forest health	No	Ongoing
Mow openings to keep as openings	No	After July 15th
Establish a 50 foot forest buffer/filter strip	No	Ongoing along Sugar Creek

**If a timber harvest is recommended, silvicultural method to be used:** Not Applicable

**Comments:** Stand 8 hosts a good access network utilizing old jeep & agricultural/mining roads allowing entry into interior stands. Water quality & aquatic habitats should be an overriding consideration. A fifty foot healthy forest buffer along Sugar Creek would be an excellent strategy. Much of Stand 8 already has wooded buffer along drainages & the watershed is recovering well. Grapevine & invasive species are problematic in Stand 8. Developing healthy forest canopy will help accomplish management goals. Controlling grapevines will improve canopy conditions. Boundary lines are sketchy & need to be remarked. All sorts of vegetative conditions from openings/fields, reverting sapling/pole areas, edges, scattered coarse dominants, developing pole/small sawtimber, creeks & drainages, access/utility corridors combine to create a hodgepodge. This hodgepodge reflects a history of intensive use along Sugar Creek. This variable condition creates some great wildlife habitat & room for improvement work. This 15-year management cycle attempt to control grapevine & invasives, maintain access, define & improve streamside buffers & keep & maintain openings/fields contributing to healthy ecology in Stand 8. A closed canopy condition is a worthy goal for the wooded patches & species mix is excellent. Mowing openings/fields is an option for keeping openings on the landscape.

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

**Stand # 9 - 36.7 Acres**

**Dominant Species:** BE, TP, HM, PAW, SPICE, HI, BY, SYC, HOP, RO, ELM, BC, BW, BO, WO, RBUD, SM, CO, BL, SO, SOUR, BG, SASS

**Forest Type or Dominant Vegetation:** Transitional Hardwoods

**Stand Diameter or Size Class:** Pole/Small/Medium/Large/Sawlogs Coarse Dominants

**Stocking Level:** Slightly overstocked

**Basal Area:** 100 ft<sup>2</sup>/acre

**Stand History:** Agriculture, logging, hunting, minerals, Keirns Rd. frontage, boundary, access

**Topography:** Westerly aspect, coves, upland blending into major drainages, steep, deep side drainages

**Present conditions for you to consider:** Site indices medium/high, grapevine/invasives, tough access, trails, rich herbaceous understory, slightly overstocked, favor oak, gas pipeline R-O-W, boundary, canopy structure, nice established woodland, remote, neighbors, possible harvest

<b>Management Recommendations:</b>	<b>Management Tasks/Year</b>	
	Required	Year
Control grapevines/invasives	Yes	Ongoing
Establish & maintain access	No	Ongoing
Monitor for forest health/trespass	No	Ongoing
Favor nut producing trees & canopy health	No	Ongoing
Consider harvest after GV/invasive control	No	2034-2039
Locate, mark & maintain boundary line	Yes	2024- 2025 & 2031-2032

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

**Comments:** Stand 9 is an example of less disturbed woodland on dry westerly aspects with deep drainages, steep slopes & lower to mid slope position. Stand 9 is very nice closed canopy established woodland. Access is difficult, would utilize old logging trails & might be best crossing neighbor's property if possible. Stocking is good & improving as desirable trees gain stature. Grapevine & invasive species are problematic in Stand 9 as in all stands. Developing healthy forest canopy will be helpful with Stand 9 ecology. Controlling grapevines will improve canopy condition. Addressing the grapevine & invasive problems prior to any timber harvesting is preferable. Basal area ranged from 130 to 60 illustrating good healthy stocking. Stand 9 is somewhat remote & difficult to access hence its less disturbed condition. This remote rich wooded stand lends itself to attractive wildlife escape, feeding & loafing areas. A bobcat was observed. This management cycle, anything that can be done to control grapevines & invasives will be a great enhancement. Manage for oak going forward with consideration of future harvesting including openings & desirable seed source residuals. The soils & site are very productive. Boundary line needs to be marked & would be high priority. Old fence & marked boundary was found near the pipeline R-O-W. Boundary work is priority one for Stand 9.

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

**Stand # 10 - 42.4 Acres**

**Dominant Species:** BE, TP, HM, PAW, SPICE, HI, BY, SYC, ELM, BC, HL, RBUD, WO, WA, ASP, HAW, BW, DOG, CO, SM, RO, SASS, BG, BO

**Forest Type or Dominant Vegetation:** Transitional Hardwoods

**Stand Diameter or Size Class:** Pole/Small/Medium/Sawlogs Coarse Dominants

**Stocking Level:** Slightly overstocked

**Basal Area:** 90 ft<sup>2</sup>/acre

**Stand History:** Agricultural production, logging, hunting, minerals, boundary, access trails

**Topography:** Steep easterly aspect, ridgetop blending into cove & a deep drainage, rocky outcrops & exposures.

**Present conditions for you to consider:** Site index/high, boundary line, grapevine/invasives, trespass, mostly upland good timber, lower slopes patchy hodgepodge, open field, water quality, canopy structure, jeep/access trails need maintenance, hunting, history

<b>Management Recommendations:</b>	<b>Management Tasks/Year</b>	
	Required	Year
Remark boundary lines	Yes	2024-2025 & 2031-2032
Control grapevines/invasives	Yes	Ongoing
Establish & maintain access	No	Ongoing
Monitor for forest health/trespass	No	Ongoing
Favor nut producing trees & canopy health	No	Ongoing
Mow & maintain open field area w/Stand 6	No	After July 15 <sup>th</sup> every 3 years

**If a timber harvest is recommended, silvicultural method to be used:** Not Applicable

**Comments:** Stand 10 is a hodgepodge with open field shared with Stand 6, patchy reverting sapling/pole lower slopes & predominately upland established timber. Access is good & best by utilizing jeep trails. Access along the lower south boundary of Stand 10 is deeply rutted. Grapevine & invasive species are problematic in Stand 10. Developing healthy forest canopy with grapevine control will be a positive enhancement & pay strong dividends for management goals. Boundary lines need to be remarked. Basal area ranged from 130 to 0 illustrating the hodgepodge conditions & established timber areas. This variable condition creates some great wildlife habitat & room for improvement work. Keeping the open field, shared with Stand 6, as an opening will preserve many management options & create some great habitat diversity. This management cycle anything that can be done to control grapevine & invasives will be a great benefit. Boundary line should be a priority for remarking & maintaining. Topography is steep & difficult. Work in Stand 10 is a moderate priority & allowing Stand 10 to continue to develop this management cycle has merit. Explore EQIP cost share opportunity. Water quality is important & influenced by Stand 10. Boundary line, mowing the open field after July 15<sup>th</sup> to keep it open at least every three years, access road improvement & any grapevine/invasive work would be quite an accomplishment for Stand 10 this forest management plan cycle.

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

**Stand # 11 - 45.4 Acres**

**Dominant Species:** BE, TP, HM, PAW, SPICE, WO, HI, BY, SYC, CHINK, RO, ELM, BC, BW, CO, RBUD, SM, SOUR, DOG, WA, SASS, HL, HAW, PERS, BG, ASP

**Forest Type or Dominant Vegetation:** Transitional Hardwoods

**Stand Diameter or Size Class:** Pole/Small/Medium/Sawlogs Coarse Dominants

**Stocking Level:** Fully stocked

**Basal Area:** 80 ft<sup>2</sup>/acre

**Stand History:** Agricultural production, logging, hunting, minerals, access, old field/pasture

**Topography:** South, southeast aspect, ridgetop blending into coves & deep drainages, rocky outcrops & exposures, steep lower slopes.

**Present conditions for you to consider:** Site index high, neighbors, grapevine, invasives, 70% nice established woodland, patchy & reverting field along lower elevations & more easterly mid-slopes, access trails, trespass, rich herbaceous understory, good species, canopy structure, steep rough topography, water quality, interior stand no boundary issues, reverting opening area

<b>Management Recommendations:</b>	<b>Management Tasks/Year</b>	
	Required	Year
Control grapevines/invasives	Yes	Ongoing
Establish & maintain access	No	Ongoing
Monitor for forest health/trespass	No	Ongoing
Favor nut producing trees & canopy health	No	Ongoing

**If a timber harvest is recommended, silvicultural method to be used:** Not Applicable

**Comments:** Stand 11 is approximately 70% sawtimber forest. The 30% remaining is patchy reverting field & woodland in various stages of stocking & development. A reverting field on the broad interior ridge in the middle of Stand 11 is mostly hawthorn, impenetrable & blending into the surrounding forest. Eventually this will take on a more forested condition but currently it's interesting to see the successional progression to forest occurring here. Access is best by utilizing the ridgetop jeep trails. Another access point of value would be across adjacent neighbor property. Grapevines & invasive species are problematic in Stand 11. Priority for cultural work would be moderate, cost share is possible & developing healthy forest canopy would be a focus. Basal areas ranged from 130 to 30 illustrating the patchy nature of the forest from the sawtimber westerly portions & ridgetops to the hodgepodge easterly portions of Stand 11. The patchy condition & the reverting field create some great wildlife habitat. This management cycle anything that can be done to control grapevine & invasives will be a great enhancement. In Stand 11 work should focus on the grapevine & invasives as a major concern following higher priority recommendations in Stands 5 & 7. Because of good access, Stand 11 lends itself to cultural work efficiently & would be a good place to start along SR 550 in the Dover Township parcels. A future harvest can configure with adjacent timber stands next forest management plan cycle.

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

**Stand # 12 - 40.6 Acres**

**Dominant Species:** BE, TP, HM, PAW, SPICE, HI, BY, SYC, BOX, ELM, BC, BW, WIL, BL, SM, RBUD, WA, BH, SU, CW, WP, SIL, BCY

**Forest Type or Dominant Vegetation:** Bottomland Hardwoods (some specimen plantings)

**Stand Diameter or Size Class:** Open/Sapling/Pole/Small/Medium/Sawlogs Coarse Dominants

**Stocking Level:** NA                      **Basal Area:** NA

**Stand History:** Agricultural production, logging, hunting, minerals, boundary line, SR 550 & Sugar Creek frontage, homesites, mining community remnants, abandoned homesites, powerline R-O-W, flooding, ornamental plantings, utilities, access points roads & trails, vacant structures

**Topography:** Bottomland riparian Sugar Creek floodplain, roads, utilities homesites SR 550

**Present conditions for you to consider:** High site index, boundary, neighbors, water quality, grapevine/invasives, access roads & trails, trespass, variable stocking, canopy structure, surface litter & debris, flooding, vacant structures, Sugar Creek buffer/filter strip, powerline R-O-W, openings

<b>Management Recommendations:</b>	<b>Management Tasks/Year</b>	
	Required	Year
Remark boundary lines	Yes	2024-2025 & 2031-2032
Control grapevines/invasives	Yes	Ongoing
Establish & maintain access	No	Ongoing
Monitor for forest health/trespass.	No	Ongoing
Establish a 50 foot forest buffer along Sugar Creek where possible	No	Ongoing

**If a timber harvest is recommended, silvicultural method to be used:** Not Applicable

**Comments** Stand 12 represents an area of intensive use now & historically. Access to all stands north of SR 550 in Dover Township can be found at a Sugar Creek crossing here. Vegetation is a hodgepodge of conditions created by abandoned homesites, openings, roads & trails, a distribution powerline, private inholdings, reverting patches of edge trees, SR 550 & coarse dominant sawlogs along Sugar Creek. Water quality would be the overarching management strategy for Stand 12. Soils along Sugar Creek constitute the best site index found in Athens County. Soils have been depleted by intensive use, compacted & eroded however inherently they are very productive & would respond positively to management. Any cultural work that would improve trees & buffering along Sugar Creek would be important. Grapevine & invasive species are problematic. Boundary is not extensive but some boundary in the Mill Creek Rd vicinity & around inholdings might be good to locate & mark. There is no need to mark roadside just where boundary is interior & ties into roads need be marked. Creating & maintaining a 50 foot wooded buffer/filter strip along Sugar Creek will be difficult due to SR 550 & powerline R-O-W but should be the focus of management for Stand 12 where possible this planning cycle. Any timber harvesting would be incidental to work in adjacent stands. Surface litter & flood detritus will be a recurring event in Stand 12.

## *Woodland Stand Description and Management Recommendations*

**Stand # 13 - 46.7 Acres**

**Dominant Species:** BE, TP, HM, PAW, SPICE, WO, SASS, HI, BY, SYC, BB, HOP, RO, ELM, BC, BW, BO, CO, SM, RBUD, WA, BH, SO, ASP, SOUR

**Forest Type or Dominant Vegetation:** Transitional Hardwoods

**Stand Diameter or Size Class:** Pole/Small/Medium/Sawlogs Coarse Dominants

**Stocking Level:** Slightly overstocked

**Basal Area:** 100 ft<sup>2</sup>/acre

**Stand History:** Agricultural production, logging, hunting, minerals, boundary line, access

**Topography:** South, east & west aspects, ridgetop blending into a deep hollow & cove

**Present conditions for you to consider:** High site index, boundary, possible timber sale, hunting, neighbors, grapevine/invasives, access trails, trespass, rich herbaceous understory, slightly overstocked, canopy structure, favor oak & mast producing trees, rich cove area, water quality, aesthetic, healthy established timber stand.

<b>Management Recommendations:</b>	<b>Management Tasks/Year</b>	
	Required	Year
Remark boundary lines	Yes	2024-2025 & 2031-2032
Control grapevines/invasives	Yes	Ongoing
Establish & maintain access	No	Ongoing
Monitor for forest health/trespass	No	Ongoing
Favor nut producing trees & canopy health	No	Ongoing
Consider timber harvest after GV/invasive control & boundary line work	No	2034-2039

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

**Comments:** Stand 13 represents one of the best established woodlands on the entire Dover Township ownership. Timber was harvested here in the past with good forest sustained & currently flourishing. An intermediate thinning following grapevine/invasive control is possible. There is no sense of immediacy for a harvest allowing time for grapevine/invasive control. Access is best by utilizing old logging trails & if possible adjacent neighbor property. Developing healthy forest canopy will be helpful & favoring oak & other mast producing species always has merit. Controlling grapevines will improve canopy conditions. Boundary lines are visible & some old fence was found. Basal areas ranged from 150 to 70 illustrating some over stocked spots hence a possible harvest option. To preserve the aesthetic, ecological attributes of Stand 13 grapevine/invasive work really should occur prior to any harvesting. The boundary lines should be a priority for remarking & maintaining. Access maintenance & improvement as well as boundary should be a priority in Stand 13 this management cycle. Stand 13 is receiving light hiking & hunting with no problems observed other than this light use. It is not surprising that folks are utilizing the trails as the forest here is very inviting & aesthetic. Well planned improvements & projects will only make the forest more healthy & appealing going forward.

## *Woodland Stand Description and Management Recommendations*

**Stand # 14 - 30.8 Acres**

**Dominant Species:** BE, TP, HM, PAW, WO, SASS, HI, RO, BC, BO, CO, SM, DOG, SO, RBUD, WA, BH, BG, PERS, WP, ASP

**Forest Type or Dominant Vegetation:** Transitional Hardwoods

**Stand Diameter or Size Class:** Pole/Small/Medium/Sawlogs Coarse Dominants

**Stocking Level:** Slightly overstocked

**Basal Area:** 90 ft<sup>2</sup>/acre

**Stand History:** Agricultural production, logging, hunting, minerals, boundary, Mill Creek Rd. frontage, inholdings & private property ownerships, white pine planting, homesites

**Topography:** Southwest aspects, ridgetop blending into Mill Creek Rd., drainages & coves, rock exposures, steep slopes

**Present conditions for you to consider:** High Site index, boundary, neighbors, Mill Creek Rd. grapevine/invasives, uplands compliment Stand 13, access trails, trespass, slightly over stocked, canopy structure, favor oak & mast producing trees, some riparian along Mill Creek & road, water quality, pine patch, Millfield Coal & Mining Company inholdings, homesites, hunting

<b>Management Recommendations:</b>	<b>Management Tasks/Year</b>	
	Required	Year
Remark boundary lines	Yes	2024-2025 & 2031-2032
Control grapevines/invasives	Yes	Ongoing
Establish & maintain access	No	Ongoing
Monitor for forest health/trespass	No	Ongoing
Favor nut producing trees & canopy health	No	Ongoing

**If a timber harvest is recommended, silvicultural method to be used:** Not Applicable

**Comments:** Stand 14 has complexities related to inholdings, neighbor boundary & frontage on Mill Creek Road. There is nice merchantable timber in Stand 14 but go slow with any harvesting until boundary line is remarked & comfortably established. Some occupied homesites are found along the road frontage. Some riparian influence from Mill Creek is occurring at the lowest elevations. Access is best by utilizing old logging trails on the ridgetops & possibly from Mill Creek Rd. Grapevines & invasive species are problematic however; with good access & a high site index, efficiency & response to treatments would be excellent (a good place to consider for forest improvement work & cost sharing). Controlling grapevines will improve canopy structure. Boundary lines are visible but sketchy & need to be remarked. Basal areas range from 170 to 30 illustrating the influence of planted pine patches, overall Stand 14 is nice timberland. Boundary lines should be a priority for remarking & maintaining. Marking of frontage along Mill Creek Rd. is not needed only mark where the boundary intersects the road. Sorting out the boundary & ownerships is needed prior to any cultural work however the forest resource would be very receptive to any works that can be implemented. Stand 14 could use a bit more time to develop hence creating a window for boundary line work & timber stand improvement practices.

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

**Stand # 15 - 12.9 Acres**

**Dominant Species:** BE, TP, HM, PAW, SPICE, WO, SASS, HI, BY, SYC, BOX, HOP, RO, ELM, BC, BW, BO, CO, HL, SM, BB, DOG, RBUD, CW, HACK, WA, HAW

**Forest Type or Dominant Vegetation:** Transitional Hardwoods

**Stand Diameter or Size Class:** Pole/Small/Medium/Sawlogs Coarse Dominants

**Stocking Level:** Fully stocked

**Basal Area:** 70 ft<sup>2</sup>/acre

**Stand History:** Agricultural production, logging, hunting, minerals, boundary line, Mill Creek Rd. & Mill Creek frontage, flooding, riparian, habitation & old homesites .

**Topography:** Two separate areas west of Mill Creek Rd, riparian bottomland & steep easterly facing lowland slopes, rock exposures, influenced by habitation & homesites.

**Present conditions for you to consider:** High site index, boundary, neighbors, grapevine, invasives, Mill Creek Rd. frontage, Mill Creek frontage, trespass, rich herbaceous understory, canopy structure, favor oak & mast producing trees, frequent flooding, surface litter & flood detritus, mining slag & remnants, water quality, nice woodland, low priority for active mgt.

<b>Management Recommendations:</b>	<b>Management Tasks/Year</b>	
	Required	Year
Remark & maintain boundary lines	Yes	2024-2025 & 2031-2032
Control grapevines/invasives	Yes	Ongoing
Surface litter/debris cleanup	No	Ongoing
Monitor for forest health/trespass	No	Ongoing
Maintain buffer filter area for water quality	No	Ongoing

**If a timber harvest is recommended, silvicultural method to be used:** Not Applicable

**Comments:** Stand 15 plays a crucial role as a buffer & filter strip along Mill Creek. The two isolated parcels can best be left undisturbed for water quality as well as how they interface with neighbors & boundary lines. Contained within Stand 15 is significant streamside buffer & frontage along Mill Creek Rd. Access is possible but would likely disturb the riparian corridor along Mill Creek & Mill Creek Rd. The upland areas are steep & could pose difficult access & neighbor relations. Stand 15 is well established woodland & functions best as an aesthetic, sensitive area that best serves community relations & water quality. Grapevines & invasive species are problematic in Stand 15 & from a forest health perspective trees would be improved & enhanced with any cultural work. Boundary lines would be good to mark & maintain realizing they interface with neighboring private lands, road frontage & Millfield Coal & Mining Company grounds. Other than boundary lines, Stand 15 should be a lesser priority for forestry activity. Mill Creek is an important wildlife corridor teeming with aquatic life & providing great habitat for many birds, reptiles, amphibians & mammals as well as being fun to explore.

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

**Stand # 16 - 51.0 Acres**

**Dominant Species:** BE, TP, HM, PAW, SPICE, WO, HI, BY, SASS, SYC, HOP, RO, ELM, BC, BW, BO, CO, HL, SM, DOG, RBUD, WA, HAZ, SU, BH, BG, SOUR, BL, SHO

**Forest Type or Dominant Vegetation:** Transitional Hardwoods

**Stand Diameter or Size Class:** Sapling/Pole/Small/Medium/Sawlogs Coarse Dominants

**Stocking Level:** Under stocked

**Basal Area:** 40 ft<sup>2</sup>/acre

**Stand History:** Agricultural production, logging, hunting, minerals, boundary line, SR 550, access roads & trails,

**Topography:** Westerly & southerly aspects, ridgetop blending into drainages, side hollows & coves, rock exposures, steep slopes

**Present conditions for you to consider:** Site indices medium to high, boundary line, SR 550, grapevine/invasives, logged over, access trails, trespass, under stocked, canopy structure, favor oak & mast producing trees, brushy difficult terrain, reverting open areas, erosion, hunting,

<b>Management Recommendations:</b>	<b>Management Tasks/Year</b>	
	<b>Required</b>	<b>Year</b>
Remark boundary lines	Yes	2024-2025 & 2031-2032
Control grapevines/invasives	Yes	Ongoing
Establish & maintain access	No	Ongoing
Monitor for forest health/trespass	No	Ongoing
Favor nut producing trees & canopy health	No	Ongoing

**If a timber harvest is recommended, silvicultural method to be used:** Not Applicable

**Comments:** Stand 16 contains south & west facing upland areas, is south of SR 550 & was heavily cut over about 5 years ago. Harvest areas are patchy with openings & regenerating gaps responding to the harvest. Rehab following the harvest included water bars & stabilization techniques mostly holding up well. Access is best by utilizing old logging trails. Grapevine & invasives are problematic & aggressive. Good vigorous sapling/seedling tree regeneration is battling the invasives. Developing healthy forest canopy will assist with the invasive problem. Grapevine control improves canopy conditions. Boundary is visible but sketchy & needs to be remarked. Basal areas range from 70 to 10 illustrating the patchy nature & stocking variability following logging. Stand 16 is understocked but located on topography that favors oak. Patchy conditions create some great wildlife habitat. This management cycle anything that can be done to control the grapevine & invasives will be a great enhancement. Boundary should be a priority for remarking & maintaining. Access maintenance & improvement as well as boundary work should be the priority in Stand 16 this management cycle. Stand 16 needs time to develop & is understocked with lots of desirable saplings present in the gaps & openings. Other than access & boundary lines, Stand16 should be a lesser priority than some of the other stands in this plan.

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

**Stand # 17 - 89.8 Acres**

**Dominant Species:** BE, TP, HM, PAW, SPICE, SASS, HI, BY, SYC, BOX, HOP, RO, ELM, BC, BW, BO, HL, SM, BB, DOG, REBUD, WA, HAW, WIL, HL, SU, CW, SIL

**Forest Type or Dominant Vegetation:** Bottomland Hardwoods

**Stand Diameter or Size Class:** Open/Sapling/Pole/Small/Medium/Sawlogs Coarse Dominants

**Stocking Level:** Mixed hodgepodge **Basal Area:** NA

**Stand History:** Agricultural production, logging, hunting, minerals, boundary, SR 550, mining, reclamation work, tree planting, access trails & roads, homesites, utilities, Sugar Creek, flooding, structures, vacant & occupied homes, inholdings & mixed ownership, watershed impoundments

**Topography:** Bottomland drainages, riparian corridors along Sugar Creek, SR 550 & lower slopes & side drainages, road, utility, homesite & mining residuals

**Present conditions for you to consider:** High but depleted site index, boundary, neighbors, grapevine/invasives, logged over, access trails/roads, trespass, reclaim pine planting, abandoned structures, occupied housing, openings, utilities, SR 550, inholdings, Sugar Creek, buffers/filter strips, access points, water quality, hunting, surface litter & debris, past history, hodgepodge tree cover, mine gob & tailings, restoration ecology, wildlife, drainage crossings, fun area to explore!

<b>Management Recommendations:</b>	<b>Management Tasks/Year</b>	
	Required	Year
Remark boundary lines	Yes	2024-2025 & 2031-2032
Control grapevines/invasives	No	Ongoing
Establish & maintain access points	No	Ongoing
Monitor for forest health/trespass	No	Ongoing
Create 50 foot forest buffers along SR 550, Sugar Creek & lower reaches of major side drainages (improve water quality)	No	Ongoing
Maintain some of the openings as openings	No	Ongoing

**If a timber harvest is recommended, silvicultural method to be used:** Not Applicable

**Comments:** Stand 17 is a bottomland/riparian hodgepodge. The stand is recovering from past history of heavy use from mining, habitation, agriculture, logging & resource extraction. It was rode hard & put away wet. Vegetation is a hodgepodge of everything from herbaceous openings to established trees. Grapevines & invasive species are problematic. Boundary should be remarked & inholdings clarified. A fascinating patch of Virginia pine was planted upon mine tailings & is doing well. Old remnant reservoirs in side drainages are creating some nice wetland areas that are attracting uncommon bird species. This management cycle anything that can be done to enhance water quality should guide strategies. Drainage crossings are sensitive areas that influence water quality. Stand 17 illustrates the rich history of Southeast Ohio & is really quite interesting. The inherent high site index here needs time to develop & can reach great potentials.

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

**Stand # 18 - 82.4 Acres**

**Dominant Species:** BE, TP, HM, PAW, SPICE, WO, SASS, HI, BY, SYC, BOX, SIL, ELM, BC, BW, BO, CO, BL, BG, SU, DOG, RBUD, WA, HAW, SOUR, PERS, WIL,

**Forest Type or Dominant Vegetation:** Transitional Hardwoods

**Stand Diameter or Size Class:** Pole/Small/Medium/Sawlogs Coarse Dominants

**Stocking Level:** Under stocked                      **Basal Area:** 50 ft<sup>2</sup>/acre

**Stand History:** Agricultural production, logging, hunting, minerals, boundary, access

**Topography:** South & west aspects, ridgetop blending into drainages, coves, steep mid slopes

**Present conditions for you to consider:** Site indices medium to high, boundary line, neighbors, grapevine/invasives, logged over, access trails, trespass, under stocked, canopy structure, favor oak & mast producing trees, brushy difficult terrain, regenerating openings, water quality

<b>Management Recommendations:</b>	<b>Management Tasks/Year</b>	
	<b>Required</b>	<b>Year</b>
Remark boundary lines	Yes	2024-2025 & 2031-2032
Control grapevines/invasives	Yes	Ongoing
Establish & maintain access	No	Ongoing
Monitor for forest health/trespass	No	Ongoing
Favor nut producing trees & canopy health	No	Ongoing

**If a timber harvest is recommended, silvicultural method to be used:** Not Applicable

**Comments:** Stand 18 is a typical example of the dry south & west facing upland stands found south of SR 550. Timber was harvested approximately 5 years ago & patchy but regenerating gaps & conditions are responding to the harvest. Access is best by utilizing skid & ridgetop trails. The logging was rehabilitated with good soil stabilization & BMPS. Grapevines & invasive species are problematic in Stand 18 as in all stands. Healthy forest canopy helps mitigate shrubby invasive species problems. Controlling grapevine improves canopy conditions. Boundary lines are visible but sketchy & need to be remarked. Basal areas ranged from 110 to 10 illustrating the patchy nature & stocking variability in the forest following logging. This patchy condition creates some great wildlife habitat & room for improvement work going forward. This management cycle anything that can be done to control the grapevines & invasives will be a great enhancement in Stand 18. The boundary lines should be a priority for remarking & maintaining. Access maintenance & improvement as well as boundary work should be the priority in Stand 18 this management cycle. Stand 18 needs time to develop & is understocked with lots of desirable saplings present in the gaps & openings. Any work on grapevine control or invasives will get a positive response from the desirable vegetation present. Other than access & boundary lines, Stand 18 should be a lesser priority than some of the other stands in this plan.

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

**Stand # 19 - 28.9 Acres**

**Dominant Species:** BE, TP, HM, PAW, SPICE, WO, HI, BY, SYC, RO, ELM, BC, BO, CO, SM, RBUD, BG, SOUR

**Forest Type or Dominant Vegetation:** Transitional Hardwoods

**Stand Diameter or Size Class:** Pole/Small/Medium/Large/Sawlogs Coarse Dominants

**Stocking Level:** Slightly over stocked                      **Basal Area:** 100 ft<sup>2</sup>/acre

**Stand History:** Agricultural production, logging, hunting, minerals, boundary, access

**Topography:** North & east aspects, some ridgetop upper slope mostly mid lower slope blending into drainages, deep hollows & cove, benches & steep slopes

**Present conditions for you to consider:** Site indices medium to high, boundary line, neighbors, grapevine/invasives, recent logging abuts Stand 19, access, trespass, rich herbaceous understory, fully stocked, canopy structure, favor oak & mast producing trees, water quality, harvest, hunting

<b>Management Recommendations:</b>	<b>Management Tasks/Year</b>	
	Required	Year
Remark boundary lines	Yes	2024-2025 & 2031-2032
Control grapevines/invasives	Yes	Ongoing
Establish & maintain access	No	Ongoing
Monitor for forest health/trespass	No	Ongoing
Favor nut producing trees & canopy health	No	Ongoing
Intermediate harvesting can occur	No	2026-2027

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

**Comments:** Stand 19 abuts the recent logging as it precedes South of SR 550 & is rich established woodland. Access is best by utilizing existing logging trails & benches. Grapevines & invasive species are problematic & ideally should be controlled prior to harvesting timber. Developing healthy forest canopy curtails shrubby invasives. Controlling grapevine will improve canopy conditions. Boundary lines can be found & need to be remarked especially if logging is to occur. Basal area ranged from 120 to 60 illustrating good stocking. There is no sense of immediacy for harvest due to overcrowding. Harvesting can occur for income generation if needed. A heavy diameter limit type cut is not suggested. An intermediate cut favoring good growing stock & species is more appropriate for stand conditions here. This management cycle anything that can be done to control grapevines & invasives will be a great enhancement. Boundary line should be a priority. Work on grapevine control & invasives will get a positive response & better prepare Stand 19 for logging impacts. Timber harvesting requires site rehabilitation following logging & needs to include disturbed area rehabilitation utilizing all best management practices (BMPS) as appropriate. Currently Stand 19 is healthy sawlog size woodland with good species mix. A nice patch of producing Paw Paws was found here.



## Management Activity Schedule

Year(s) Suggested	Stand	Required Task	EQIP Practice	Acres	Recommendations
2024-2025	All	Yes	No	All	Mark boundary use quality paint
2026-2027	1,2,5,7, 19,20	Yes	Yes	205	Grapevine control (manage arbors for wildlife) Priority 5, 7, 19 & 20
2028-2039	All	Yes	Yes	826	Invasive control ( refine w/field checks for EQIP & priority)
2028-2029	3,4,6,8,9 10,11,12 13,14,15 16,17,18	Yes	Yes	621	Grapevine control (manage arbors for wildlife)\ Priority 6,9,10,11,13,14
2027	3,6,8,10 12,17	No	?	5 to 20	Identify openings, mow every 3 years after July 15 <sup>th</sup> to keep open
Ongoing	All	Yes	No	NA	Maintain & improve access trails, roads & corridors
Ongoing	3,8,12 15,17	No	Yes	NA	Establish & maintain healthy wooded riparian buffer/filter strips
Ongoing	Variable	Yes	Yes	?	Maintain treated areas & be vigilant for invasives.
2031-2032	All	Yes	No	All	Mark & maintain boundary lines
2034-2039	5,7,9,13	No	No	149	Consider & evaluate for an intermediate timber harvest (have a qualified forester assist)
2026-2027	19,20	No	No	58	Consider & evaluate for an intermediate timber harvest (have a qualified forester assist)
Ongoing	Whole Property	Yes	No	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 woodland stewardship management plan.

Invasive species observed: multiflora rose, garlic mustard, bush honeysuckle, Japanese knotweed, poison hemlock, privet, barberry, autumn olive, Japanese honeysuckle, ailanthus, paulownia (princess tree), stilt grass, oriental bittersweet & burning bush. Grapevine is heavy, while a native plant, grapevine control will tremendously improve & release struggling trees, develop canopy structure & improve overall forest conditions. Grapevine arbors are beyond control but serve as wildlife nesting, feeding, loafing & escape cover & can be left with just perimeter control of vines to prevent arbors from spreading. Treatment priority is prior to timber harvest

Tennessee Gas & AEP have major transmission/ distribution infrastructure with pipeline & R-O-W corridors being a dominant feature on the landscape crossing the Sugar Creek Coal & Mining parcels. An estimated 7 acres of maintained R-O-W exists in the Tennessee Gas corridor & at least another 5 acres is non-forest from homesites & AEP- R-O-W.

Addendums



Bill board along SR 550 & Stand 17 frontage

## ***Woodland Resource Descriptions***

### **General Soils Information:**

Berks, Brookside, Chagrin, Dumps/Mine, Fitchville, Guernsey, Haymond, Steinsburg, Upshur, Vandalia, Westmore & Westmorelnd series soils can be found in the Dover Township parcels. The diverse soils will support a tremendous amount of variable habitats & plant communities. This richness is a very healthy ecological condition.

**Soil Type(s):** BkF, BrE, Chg1AF, Dy, FcA, GsC, GuC, GuD, Hay1AO, StF, UpD, UsD, VaC, VbD, VbE, WeC, WhD, WhE, WkF, WmD, WmE

**Soil Drainage Class:** Ranges from well, moderately well drained with the Fitchville Series being, somewhat poorly drained & the Dumps/mine designation being influenced by human activities with variable drainage capabilities needing to be determined on a case by case basis.

**General Description:** Soils are low/medium to very productive they are typical woodland, upland & frequently flooded soils common to the region. BMP'S & careful management will enhance & preserve soil productivity. Soils present no limitations to any of your goals however some are better suited for impacts than others in terms of equipment & access.

**Site Class: (using Woodland Productivity):** low/medium/high (80% high, 20% medium/low)



Stand 17- DY soil patch- slag, gob, mine debris

### **Timber Information:**

Productivity & potentials are high. A variety of stocking situations gives many options for management. In Stands 5, 6,7,9,10,11,13,14,19 & 20 a timber harvest might be possible this management cycle however access, boundary line work & at least grapevine control prior to harvest is strongly suggested. Younger or hodgepodge developing timber is found in remaining stands along SR 550 & the Sugar Creek drainage. These hodgepodge stands were recently cut heavily or have been affected by past historical use & need time to develop. Stands 19, 20, 5, & 7 would be the priority to improve with cost share or work projects prior to harvest. Species mix is excellent & developing quality timber can be found in all stands. Grapevine control & invasive species control are the most immediate improvement concerns. Crowding, cull tree removal & general woodland management can be handled with routine forest operations. Cost sharing with the NRCS through the EQIP forestry program has some great possibilities & will assist in tackling the most pressing cultural needs for stands on the property. Access corridor improvement & boundary marking & maintenance, will add value to the timber as well as being high priority. Most all of the Dover ownership is high site index for timber productivity.

### **Wildlife:**

Exceptional habitat conditions are on the property. Everything from mature woodland to aquatic resources can be found. Small impoundments & pools, stream frontage, drainages, riparian corridors, water holes & vernal pools are scattered about the land. Coarse woody debris & exposed rocky ledges lend even more variety to the landscape. Deer can be observed everywhere & are quite numerous. Also observed were turkeys, reptiles, snakes, numerous songbirds, amphibians & raptors. Small mammals like rabbits, possum, ground hog & raccoon are common. The property is very rich in wildlife resources. Deer could be a problem as reproduction of seedling trees may be impacted by heavy deer browsing. Hunting is encouraged & of importance to goals & objectives as is general wildlife management on the property. There appears to be plenty of nesting, feeding, loafing, escape cover & habitat for many species of wildlife. No specific wildlife practices, other than hunting related, are currently occurring. Enhancing habitat with openings, food plots & specific areas dedicated to wildlife especially vernal pools, wetlands & riparian corridors & pollinator plantings is certainly a worthy possibility. Further guidance & assistance might be obtained through the ODNR private lands biologist in Athens, 740-589-9957 or with private wildlife consultants & professionals.



Bird nest, Stand 16

## Water:

The property is rich in water resources. Seeps, springs, pools, streams & drainages all contribute to water resources. The property currently is contributing to enhanced water quality & has some excellent filter strips & buffers along many of the drainages & riparian corridors. Improving establishing & maintaining buffers is a frequent stand recommendation this management cycle. Some wetland conditions seem to be developing & this is quite unique & interesting. Water quality would be a very worthy overarching management theme to guide practices.

Practicing good sustainable management with regard to BMP'S & proper management around water areas will pay great dividends in many ways for the objectives outlined on this property.

**Best Management Practices** – maintaining the integrity & productivity of woodland sites: Basic protection measures used to guard forest soils against problems related to soil/site limitations & equipment usage, rutting, excessive disturbance, compaction, erosion, & sedimentation are commonly referred to as Best Management Practices (BMP'S). One very easy BMP is simply to limit heavy equipment activity to dry weather periods.

Hilly to steeply sloped terrain is more subject to site disturbance & subsequent soil erosion & sedimentation. Forest management may still be accomplished on steep areas with the use of BMP'S. Even when the forest terrain is nearly level to gently rolling & where slope does not present a hindrance to access for management activities, it is important to keep the trails up away from the drainages where possible. This helps protect water quality by providing a buffer or filter strip of undisturbed soil & 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 most current publication BMPS for Erosion Control in Ohio. This booklet is available online at [www.ohiodnr.gov/forestry/](http://www.ohiodnr.gov/forestry/).

Practically speaking the use of BMP'S to prevent soil loss is a sound agricultural practice that helps maintain site & timber productivity. Implementing BMP'S helps comply with Ohio's Agricultural Pollution Abatement Law (HB 88) Standards for Silvicultural Operations. Access corridors, utility R-O-W, & most recent logging activity have all had BMPs applied. BMPS from the most recent logging have been somewhat successful & stabilizing to soils. Pay particular attention to drainage & stream crossings as these are critical areas for BMPS & water quality.



Developing wetland Stand 17

### **Forest Health:**

This woodland shows good overall health & vigor however a few problems were noted. The oak & walnut component can be better represented in the mix & on certain sites should be favored. These species were heavily cut from logging but are represented in saplings & seedlings filling in the gaps. Grapevine & invasive species are taking a detrimental toll on overall forest health & desirable tree growth. This stress on trees can actually cause mortality & change forest ecology for worse. In some cases the woodlands are slightly crowded & stocking levels were good however in heavily logged areas stocking levels were understocked leaving openings & gaps filling in with trees but also invasives. Stocking is a normal process that happens as forests mature. Overstocked stands indicate that the woodland can sustain a thinning. Sometimes mortality from competition occurs in overstocked stands. Following the management schedule in this plan should guide projects into timely decision points. Deer browsing of seedlings in some areas can be worrisome for future forest growth & species diversity. Invasive species were observed everywhere & are a major forest pestilence. Attention to controlling invasives would be a high priority & cost sharing is possible for this. Grapevines are a problem on most all the woodland sites. The place to start with grapevine control would be on your best tree growing ground first & cost sharing can help with this as well. The guidelines in your management schedule take into account the site conditions & management objectives.

The emerald ash borer (EAB) is 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 infestation, this process essentially chokes off the flow of water & nutrients within the tree which leads to the tree's death. This insect can spread naturally from tree to tree as well as artificially through the movement of ash material such as firewood. EAB has devastated the ash trees & they are now inconsequential on the property. Perhaps the most current logging here was able to salvage many of the ash trees prior to their demise. A very minor ash presence can be found in saplings & seedlings that will likely get reinfected with the EAB.

Information about some of the common threats to our forests can be found in the Appendix of this plan.



Understocked cut over Stand 18

**Wetlands:**

Wetlands are extremely important for water quality they provide unique habitats for fish & wildlife. These are an important forest resource component for overall health of the forest system. Ephemeral or seasonal wetlands, also called vernal pools, are typically small in size & tucked within the forest cover. Vernal pools periodically dry up & do not contain fish. This drying may occur annually or just during drought years. These pools provide unique habitat for amphibians, like salamanders & frogs, as well as many other species of wildlife. Many folks find these important components of the landscape improve the aesthetics & overall enjoyment of the property. Vernal pools are found upon the property. These areas are worth taking note of & managing for in order to keep them viable & functioning as important habitat.

Soils can sometimes indicate wetlands & wetland potentials. Wetland soils are scarce in much of Southeast Ohio. Sometimes a more formal wetland condition can be found as an inclusion in some soils that can be found on this property. Wetlands are unique & create noteworthy habitat with interesting plants & wildlife. Some indications of wetland development were noted in the bottomland areas of the property (old reservoir areas Stand 17). Having wetland conditions is a wonderful feature & greatly enhances the wildlife goals & objectives for the property.

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

No specific threatened or endangered species were noted within your forestland however; a complete biological survey was not conducted. Some threatened & endangered species found in Ohio include Timber Rattlesnake, Northern Harrier, Indiana Bat & American Burying Beetle. Habitat requirements for threatened & endangered species may or may not be found on the property; such species have certain habitat requirements. Specific information on threatened or endangered species may be obtained by contacting the Ohio Department of Natural Resources Division of Natural Resources & Preserves directly to access the National Heritage Database.

ODNR-Natural Areas and Preserves  
2045 Morse Road, Bldg. F-1  
Columbus, OH 43229-6693  
Phone: (614) 265-6453

**Archeological/Historical Resources:**

Historical & cultural resources are nonrenewable & can never be replaced once destroyed. These resources provide a unique glimpse into the past & a look at the people & how they cared for the land. Good stewardship involves recognizing these resources & protecting them. These resources should be conserved whenever possible when they are present on the property. A rich historical legacy of Southeast Ohio is represented by these lands.

**Recreation:**

Each forest has a unique history & character... & this continues to build under your stewardship. This forest is used for hunting, hiking, light ATV recreation & access, production of wood products, aesthetics, nature study, water quality & appreciation of the history, cultural resources & wildlife that can be found. Many landowners find great enjoyment & satisfaction doing improvement work in the woods. Others find pleasure in watching the birds or gathering gourmet foods like fruits, nuts & mushrooms. Flowering trees & plants add beauty to the forest. Maintaining trails & access will improve opportunities to enjoy the woods. The forest can be a place of solitude after a busy day at work or it can be a place of great satisfaction from knowing that with good & proper management one can get sustainable income & benefits for hearth & home. Hunting & wildlife will be a major influence upon the management of the property going forward as this activity is a primary goal & objective.

**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 songbirds, or where they can take their favorite bird dog for an autumn hunt for ruffed grouse. Forest stewardship management addresses these & other various aesthetic tastes & may weigh in visual goals of the neighbors. When you are weighing aesthetic goals consider as a group; visual aesthetics, the aesthetics of a functioning ecosystem & the wildlife species found on the property.



Forest dwelling moth Stand 5



Tennessee Gas pipeline Stand 3

### **Other Resources:**

Associated forest resources vary somewhat from forest to forest but often include a variety of herbaceous plants within the fields & forest on the property. Spring, summer & fall wild flowers can be really fascinating & enjoyable to those who might take an interest. Medicinal herbs & plants like ginseng & yellow root can be fun to find & even generate some income. There is always a thrill in finding the shed antlers of deer & observing the habits & patterns of the local wildlife.

One can always find a vast array of insects in woodland. Some can be destructive, some really interesting most are beneficial & remain in the background & of course there are those that one would just as soon not encounter. Insects are essential to the proper functioning of a healthy ecosystem & many bees, wasps, flies & butterflies are performing important ecological roles like pollinating plants or destroying harmful pests as they go about their routines.

Sometimes folks take an interest in other related opportunities & build into business with the forest resources. Leasing hunting rights or even mineral rights are sometimes viable options. Building rental cabins & hosting tours or recreational events can also be possible opportunities. Using the land for educational seminars or youth activities like camping can be an option as well.

Maple syrup production can be an interesting hobby for some while others may decide to manage for the best possible timber & greatest quality trees they can grow. Others might try their hand with Christmas tree production or landscape nursery related activities.

Geologic features including caves, overhangs, rock falls, cliffs & exposed rock strata all contribute to a fascinating story of the geological history of the region & make the woods all the more interesting. It seems a great photo op was around every nook & cranny in the woods.

It is this mosaic of uses & opportunities scattered across the landscape that creates a forest based economy & healthy ecosystem. By practicing good stewardship the forests can return economic & intangible rewards many times over.

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

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

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

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

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

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

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

Consistent forestry terminology is essential to anyone interested and involved in the science, management, and conservation of forests. The Society of American Foresters (SAF) offers a great resource for such forestry terminology: “The Dictionary of Forestry”. This dictionary is an excellent tool available for anyone to learn more about the language used in forestry. The dictionary provides precision, clarity, and consistency in communication of forestry terms. You may access “The Dictionary of Forestry” for free at SAF at [www.dictionaryofforestry.org](http://www.dictionaryofforestry.org). If internet access is not available, one may purchase a printed version from SAF (toll free 866-897-8760).



# PUBLICATIONS LIST

## *Sugar Creek Coal & Mining Company Dover Township Parcels*

### WOODLAND STEWARDSHIP MANAGEMENT PLAN

- Factsheet: Verticillium Wilt Fungi in Controlling Ailanthus
- Factsheet: Caring for your White Oak Woods
- Ohio Woodlands Steward Newsletters: Spring/Summer 14, Winter 17-18, Summer 18, Winter 18, Fall 19, Winter 20, Winter 22,
- Information: Spotted Lanternfly, Asian Longhorned Beetle, Hemlock Woolly Adelgid, Thousand Cankers Disease, Gypsy Moth, Viburnum Leaf Beetle, Beech Leaf Disease
- Lawrence, Eleanor, & Fitzsimons, Cecilia, An Instant Guide to Trees, 1999, Random House, New York, NY.
- Fire Brochures & Smokey Bear items
- Contact a Forester First Brochure
- Misc. maps: USGS Topo, Athens County GIS Contour & Soils Air Photo Maps, Athens County Soil Survey, NRCS Soil Survey
- Ohio Hunting & Trapping Regulations 2024-25
- Fact Sheets: multiflora rose, common barberry, Japanese barberry, oriental bittersweet, poison hemlock, autumn olive, winged burning bush, European privet, Japanese honeysuckle, exotic bush honeysuckles, paulownia (princess tree), Japanese knotweed, Japanese stiltgrass, garlic mustard, ailanthus, mile-a-minute weed
- Appendix