Serby's Forestry Services

Woodland Stewardship Management Plan

CHARLES MAYZLIK

Owner's Information:

Case Number: 05-1416 Farm #2630 Tract #10799

Principle Contact: CHARLES MAYZLIK

Signed: Charles J. Mayzlik Date: March 15, 2023

Preparer's Information:

Prepared by: William J. Serbonich CF #619

Signature: William J. Serbonich

Serby's Forestry Services Date: 03/15/23
2165 Clara Avenue
Albany, OH 45710

This plan is valid for the period beginning 04/01/23 & ending 04/01/38
Plan Status: Update/renew
Property recon: Data collection, area inventory, CAUV/OFTL management plan.

Woodland Stewardship Management Plan

Owners	Charles Mayzlik		
Address	152 Irving Wick Drive East Lot 18-B		
	Heath, OH 43056		
Phone	740-323-6694	Case Number	05-1416
County	Athens	Township/Village/City:	Bern Township
Location:	Property Address: Pts of Section 23 & 24, (Bern Twp) Athens County, State of OH		
	Parcels- D010010018700, D010010019215, D010010019200		
	Contact : Charles Mayzlik		

Woodland Stewardship Acreage: 135.20

Non-woodland Stewardship Acreage*: 8.00

* Non-woodland acres for which stewardship recommendations are made.

Total Property Acres 143.20

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

(X) OFTL/CAUV

(X) American Tree Farm Program

(X) USDA/NRCS-Cost Share Programs

(X) Landowner Education & Guidance

Property coordinates
Latitude: N 39.43803 Longitude W 81.88638

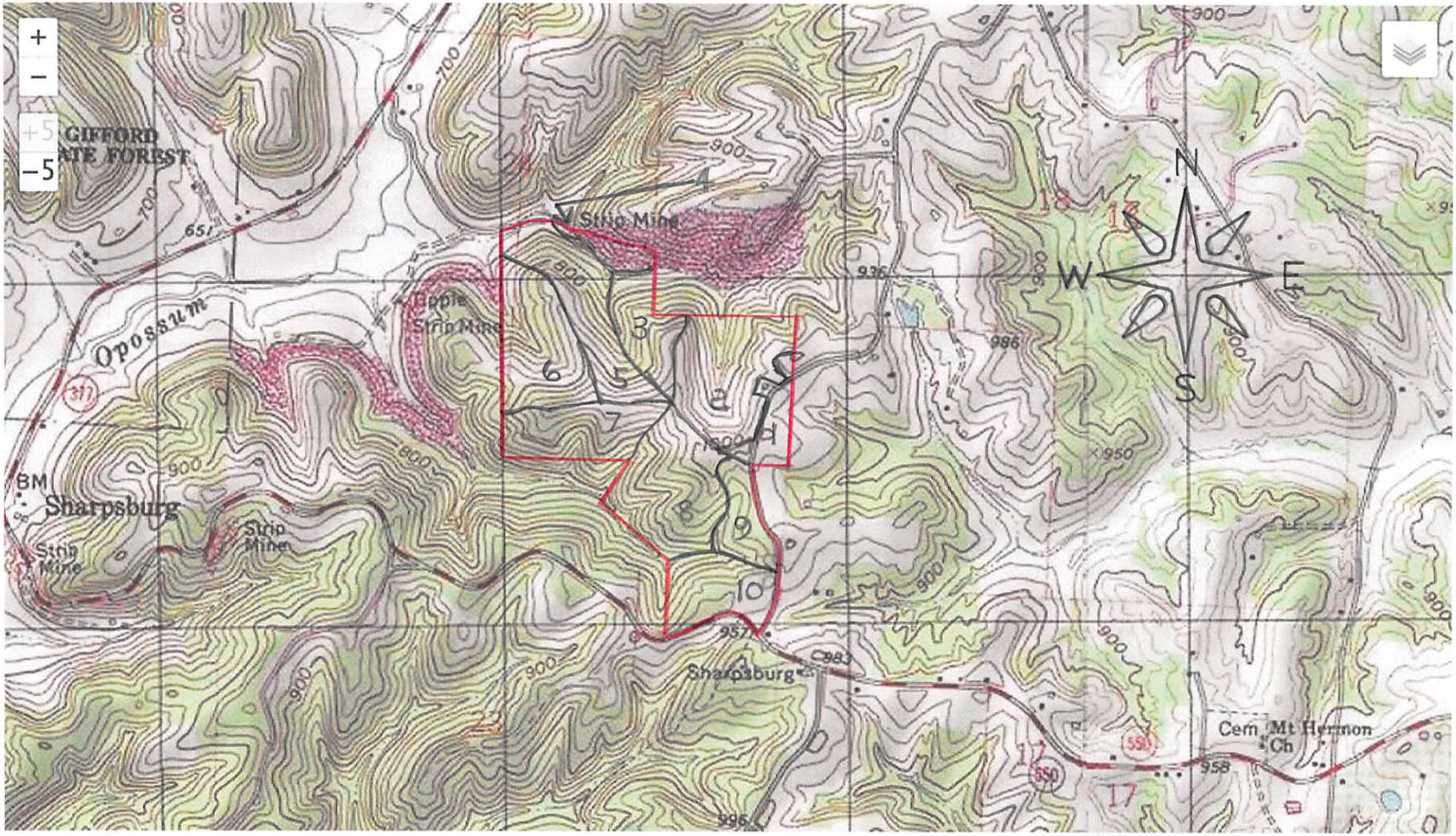
Landowner Objectives

1. Maintain & improve the productivity of the forest.
2. Create interest & appreciation for many diverse forest values such as songbirds, wild flowers, native plants, mushrooms, nuts, insects, reptiles, amphibians & habitats.
3. Conserve soils from erosion; install & maintain practices that reduce erosion.
4. Leave the woodlands in better condition for future generations.
5. Manage the property for all the attributes & opportunities that exist in a forest ecosystem including recreation (hunting, hiking, solitude, nature study, working outdoors) & other compatible conservation uses.
6. Develop & maintain favorable food & cover conditions for game & other wildlife.
7. To select & learn about tree species best suited to the soils & sites found upon the land.
8. To become & remain eligible for agricultural tax abatement programs (CAUV, OFTL).
9. Grow trees which will provide products for sale.
10. Implement cultural treatments especially upon the better woodland sites to shorten the time necessary to produce high-quality timber.
11. To improve upon & acquire expertise with nontraditional forest products such as medicinal herbs, paw paws & ramps.
12. Maintain an awareness of historical, traditional farm activities upon the property where applicable including mineral management (gas & oil well production & mining), old home sites, historic remnants & foundations.
13. Identify, protect & preserve unique features (natural, cultural, archeological & historic).
14. Maintain, develop & improve access corridors.
15. Identify, discourage & control invasive species.
16. Discourage trespass, littering, illicit hunting & use of the land without permission.
17. Promote & favor desirable tree species such as the oaks & other mast-producing species.

General Woodland Description

This property is almost entirely woodland with its defining characteristic being a greatly improved forest condition developed since acquisition approximately 24 years ago. There are 3 rental units with frontage along Sweat Road. Frontage also exists along State Route 550. The rental units occupy a six acre hodgepodge zone of conditions & landscapes. Remaining acres can be considered woodland & have coalesced into a definitive forest condition containing 137.2 acres. Acquisition of the property occurred in three stages. One hundred acres was acquired in 1999, 28.18 acres in 2005 & 15.02 acres in 2006. In 2014 a small 3 acre timber harvest occurred upon the 15.02 acre parcel otherwise no formal harvesting has occurred since acquisition. Some great cultural projects have been conducted upon the property involving grapevine control, crop tree release & invasive species control. Boundary lines have been nicely maintained over the years. The American Forest Foundation recognized the property as Tree Farm #3798 & the property has been under the CAUV agricultural tax abatement program for a number of years. Professional foresters have been involved with assisting the management process of the property since its acquisition in 1999. ODNR foresters, USDA-NRCS cost share programs, Athens SWCD & private sector foresters have all been involved in management recommendations. A dynamic mix of various stages of ecological habitats can be found. The overarching condition is very desirable woodland in the sawlog size class. One can also find a hodgepodge of small inclusions of open ground, edge effect along utility & access corridors, water resources & small patch openings from ash mortality. These inclusions are small & blend into the dominating sawtimber stands. Access to the stands is moderate to good utilizing a road/trail system that ties into main ridgetop corridors making a good network for managing & enjoying the property. Boundary lines are in good condition & marked. The topography is rough & harvesting timber will require some long skids & trails as well as wise use of BMP strategy. Work on invasives should be developed, implemented & continue to be ongoing. Invasive plant incursions are sadly a regional issue that can present some daunting & difficult problems. Many of the regionally problematic invasive plants can be found on this property with autumn olive, multi-flora rose & a few ailanthus being the most worrisome & obvious. Invasives have not overwhelmed the stands on the property, but a few areas are serving as epicenters for spreading these pesky plants. This is mostly along the edges of the access corridors, roads & in canopy gaps. Overall a general atmosphere of improvement is taking hold upon the landscape with commercial harvesting being a possibility as well as many opportunities for EQIP cost share projects with the USDA-NRCS. Maintaining & improving access & boundary lines has great merit & will be ongoing chores. Growing sites for red oak site indices range from 71 to 81. Most of the property is high site index ground with excellent potentials. Twenty four acres are Steinsburg sandy loam soil & would have a Virginia pine site index of 70 but a poor index for red oak. Developing your own knowledge & seeking professional recommendations for management from foresters, resource professionals & experienced contractors & technical resources is always a good idea. At one time, the land was a working farm typical of the region. The woodlands were impacted from a past history of agricultural operations & historical habitation. Species mix of trees has excellent potentials & consists of native hardwoods. Stands for the most part are medium to overstocked indicating good possibilities for commercial timber harvesting. Deer & other wildlife abound. Condition of the woodland resources is good overall, however some depleted to mediocre trees will be found in the mix. The timber resource is quite valuable & can yield significant income in both the short & long term perspective. The species mix has some mature high value marketable trees. Forest stands demonstrate that the land is capable of producing quality trees that can continue long term with proper stewardship. Good growing stock trees can be found & the quality species would be important trees to favor when found in the mix. The interior woodland understory has native herbs & plants with potentially worrisome competition from invasive species. Invasive species are filtering into the mix with varying degrees of infestation. White ash trees have been devastated by the emerald ash borer & are no longer a viable component of the species mix. Coarse woody debris from dead ash and a few other species is building up in the understory an indication that harvest prescriptions should be a consideration in some stands.

Bern Township NW
T-7-N / R-12-W
Bern Township SW
Ames Township NE
Bern Township NE
Morgan County
N
Sharpsburg
Dodson Run
MAYZLIK CHARLES & JANE TRUSTEE 100.00
BLYTH CHARLES ET AL 78.19
KC CATTLE CO LLC 64.71
KC CATTLE CO LLC 184.734
STATE OF OHIO 320.00
STEVENS DONNIE 157.25
STEVENS DONNIE 260.48
FLUHARTY GREGORY BLAINE ETAL 160.00
FLUHARTY GREGORY BLAINE ETAL 110.00
STEVENS DONNIE ETAL 53.00
RUSSELL GERALDINE ETAL 111.80
LANGEL MERRILL 115.47
CANTRELL WILLIAM 59.90
SAYRE PEGGY JOAN 68.76
CHADWELL LOIS 95.75
SAYRE PEGGY JOAN 52.50
LANGEL MERRILL 112.50
GARGULLO SUSAN TRUSTEES 140.87
MCKIBBEN JERRY 101.00
KILZER PAUL II & KERENSA 82.50
SIMMONS D
ADKINS TIMBER 110.27
STOVER WILLIAM 150.00
ADKINS-TIMBER 184.30
LANGEL MERRILL 55.50
LANGEL MERRILL 69.95
FISCHER RAYMOND CHARLES 147.56
FISCHER WAYNE 28.99
GILCHRIST WAYNE 41.16
LANGEL MERRILL 31.06
FISCHER WALLACE 155.41
COBB DAVID 34.09
COBB DAVID & SANDRA 60.00
MANZO DAVID 82.80
GILCHRIST WAYNE 48.32
GILCHRIST WAYNE 75.50
MAYNARD JAMES & MARCELLA 51.68
RUSSELL GERALDINE ET AL 62.22
RUSSELL GERALDINE 7.11
BLYTH ET AL
FRINZL BARBARA TRUSTEE 21.13
SPAULDING BOBBY JO ANN 136.87
CAMERON THOMAS 40.00
CAMERON THOMAS 40.00
MIBEARD LLC 60.00
DAGNAN 10.01
DAGNAN 10.01
PREUSS DORRIT EMILIE 40.00
COOLEY RONNIE 80.00
BEVERLY ETAL 63.99
LUCAS JOE & 5.45
5.56
DEVERADK 11.24
9.93
FRINZL BARBARA TRUSTEE 25.00
FRINZL 19.37
FRINZL 13.45
BARBARA 54.92
FOX BRIAN 32.54
BOGEAR DAVID 54.70
LOWRY MICHAEL 46.52
FISCHER 15.96
LOWRY MICHAEL 47.69
FISCHER 14.86
WETHERILL TODD ET AL 122.81
WETHERILL TODD ET AL 85.00
ZOLTON EDMUND 26.63
HOVANIC MICHAEL ET AL 38.87
HOVANIC MICHAEL ET AL 29.05
MULLINS ORVILLE 24.16
DE CARLO JOSEPH & CARMEN SON 70.479
WIKALEN JOHN 20.01
MACHO RICHARD MICHAEL JOHN 22.76
22.50
HOVANIC 6.00
T-201-TUCK RD 5.73
35.46 KERRY
HILE
WIRKNER RALPH 48.21
BURGESS H JR 19.12
17.33
SMEDLEY 20.00
CHADWICK MICHAEL & JANIE 9.52
26.16
GILLESPIE JOSEPH 44.71
HAL SCOTT 51.27
30.69
JUSTICE TROY 53.23
WYKSTRA JOHN 32.54
MAYZLIK 15.02
MAYZLIK CHARLES CONNIE 28.13
SCHOOL
STEVEN MARILYN ET AL 24.35
GRABILL MARILYN ET AL 13.29
BLAKE SCOTT 27.68
FRINZL 19.20
FRINZL 13.45
BARBARA 54.92
FRINZL BARBARA TRUSTEE 25.00
BLYTH ET AL 26.00
GILCHRIST WAYNE 30.50
5.88
13.09
GERALDINE 7.11
RUSSELL GERALDINE 26.00
STEVENS DONNIE 6.28
BRAKE DONNIE 13.99
T-206 RD
T-513 RD
SR 550
SR 377
US 40
FR 23
FR 24
FR 34
FR 35
FR 7
22
23
24
28
29
30
34
35
36



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.

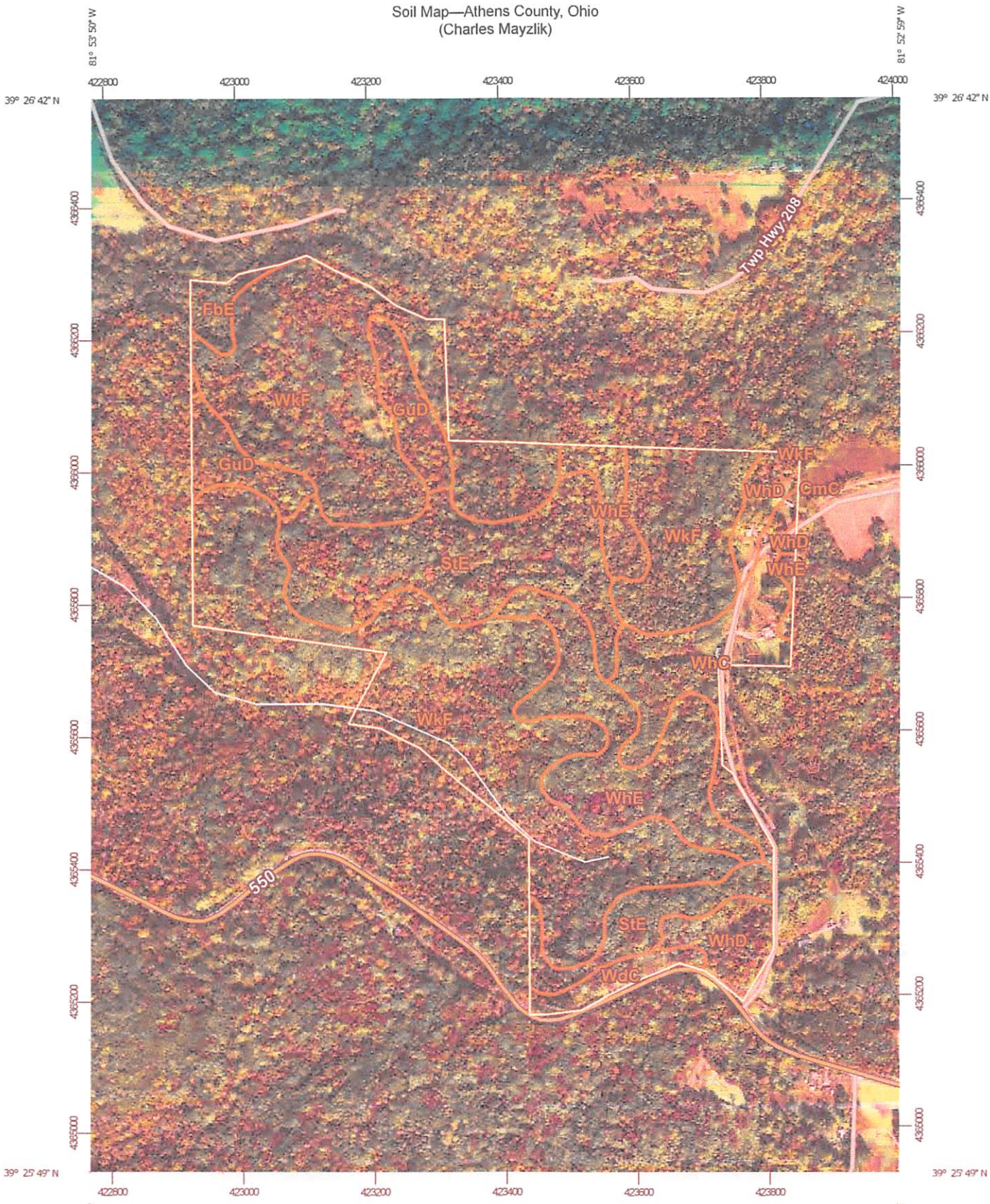
Soil Survey Area: Athens County, Ohio
Survey Area Data: Version 24, Sep 8, 2022

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

Date(s) aerial images were photographed: Oct 9, 2020—Oct 14, 2020

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
(Charles Mayzlik)



Map Scale: 1:7,920 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 100 200 400 600

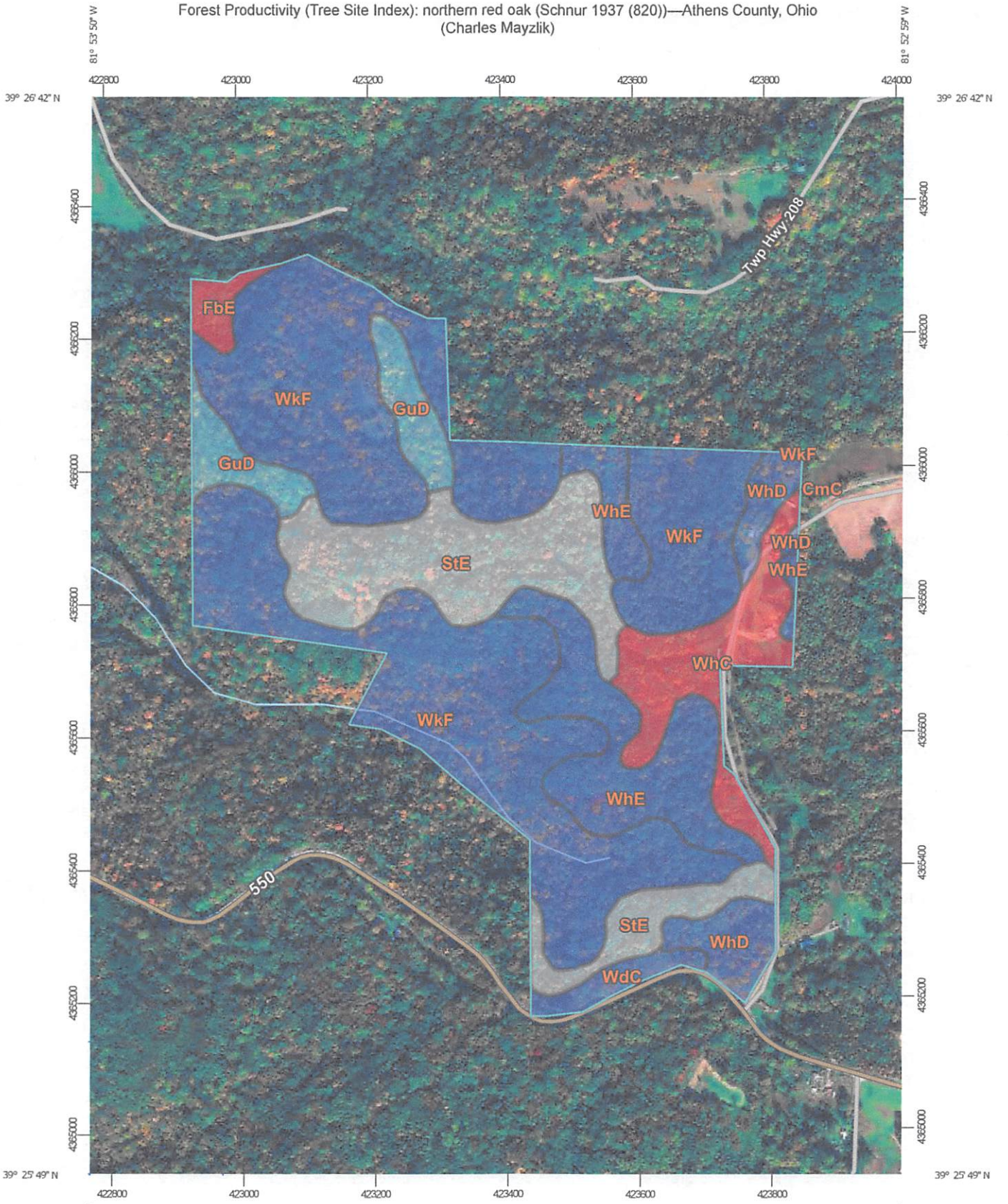
Feet: 0 350 700 1400 2100

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

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
CmC	Clymer loam, 8 to 15 percent slopes	0.0	0.0%
FbE	Fairpoint shaly clay loam, 25 to 40 percent slopes	1.8	1.2%
GuD	Guernsey-Upshur complex, 15 to 25 percent slopes	7.4	5.0%
StE	Steinsburg sandy loam, 25 to 40 percent slopes	24.9	16.9%
WdC	Wellston silt loam, 8 to 15 percent slopes	2.4	1.6%
WhC	Westmoreland-Guernsey silt loams, 8 to 15 percent slopes	11.0	7.5%
WhD	Westmoreland-Guernsey silt loams, 15 to 25 percent slopes	6.6	4.5%
WhE	Westmoreland-Guernsey silt loams, 25 to 40 percent slopes	17.8	12.1%
WkF	Westmoreland-Guernsey silt loams, benched, 40 to 70 percent slopes	75.2	51.1%
Totals for Area of Interest		**147.2**	**100.0%**

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



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N

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Feet: 0 350 700 1400 2100

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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
CmC	Clymer loam, 8 to 15 percent slopes	77	0.0	0.0%
FbE	Fairpoint shaly clay loam, 25 to 40 percent slopes	75	1.8	1.2%
GuD	Guernsey-Upshur complex, 15 to 25 percent slopes	78	7.4	5.0%
StE	Steinsburg sandy loam, 25 to 40 percent slopes		24.9	16.9%
WdC	Wellston silt loam, 8 to 15 percent slopes	81	2.4	1.6%
WhC	Westmoreland-Guernsey silt loams, 8 to 15 percent slopes	75	11.0	7.5%
WhD	Westmoreland-Guernsey silt loams, 15 to 25 percent slopes	81	6.6	4.5%
WhE	Westmoreland-Guernsey silt loams, 25 to 40 percent slopes	81	17.8	12.1%
WkF	Westmoreland-Guernsey silt loams, benched, 40 to 70 percent slopes	81	75.2	51.1%
Totals for Area of Interest			**147.2**	**100.0%**

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.

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils

Soil Rating Polygons
- <= 75
- > 75 and <= 77
- > 77 and <= 78
- > 78 and <= 81
- Not rated or not available

Soil Rating Lines
- <= 75
- > 75 and <= 77
- > 77 and <= 78
- > 78 and <= 81
- Not rated or not available

Soil Rating Points
- <= 75
- > 75 and <= 77
- > 77 and <= 78
- > 78 and <= 81
- 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

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Woodland Stand Description & Management Recommendations

Stand # 1 – 8.0 Acres

Dominant Species: Misc landscape and native plantings some patches of hardwoods common to all stands

Forest Type or Dominant Vegetation: open lawn, landscaping and wild patches

Stand Diameter or Size Class: open to small/medium sawtimber

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

Stand History: Agriculture, boundary line, recreation, utilities, rentals, intensive use, homesites

Topography: Ridgetop and road frontage

Present conditions for you to consider: Invasives, access, boundary line, ash mortality, utility R-O-W, favor desirable trees, landscaping, cleanup of detritus & litter, rental maintenance

Management Recommendations:	**Management Tasks/Year**	
	Required	Year
Maintain access & rental units	Yes	Ongoing
Mark & maintain boundary lines	Yes	2025-2026
Invasive species control (shrubs/vines & grapevine), identify, spot treat as found	No	Ongoing
Maintain & improve landscaping	No	Ongoing
Debris and litter cleanup salvage from barn fire, improve general aesthetics	Yes	Going forward

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

Comments: Stand 1 consists of 3 rental units and the remnant footprint of the barn that burned down in 2022/23. The fire created a complete loss including important contents such as tools, a farm tractor & stock pile of herbicides for forest management needs. The rental units require upkeep and continuing maintenance. Access is good along the Sweat Road frontage. Paying particular attention to eliminating shrubby invasives & grapevines would have merit & help eliminate a source of spread here. Stand 1 consists of buildings, lawn, utilities & homesites for folks renting the three homes. Patches of trees can be found with some potential for healthy development & aesthetics. There is lots of debris & litter & the barn fire has left a scar that will take lots of cleanup & salvage. Aesthetics, boundary line & general building maintenance & upkeep are enough to keep one busy & at times can even be daunting & overwhelming. Stand 1 presents a good dwelling location for the renters & it is highly commendable that maintenance & upkeep has been providing the essentials. With all the accomplishments in the woodland in addition to the workload presented in Stand 1 one can only marvel at how dedicated & hard working things have been on the property. Stand 1 has been a very labor intensive & expensive allocation of the landowner's time and resources. The loss of the equipment to the fire has been a big set back to the property management and resources needed for overall project accomplishments.

Woodland Stand Description & Management Recommendations

Stand # 2 – 21.2 Acres

Dominant Species: HI, TP, SYC, SASS, RO, HM, PAW, SM, ASP, WO, BO, BE, SOUR, CO, BW, BC, ELM, BB, BASS, DOG, SPICE, BY, DSC

Forest Type or Dominant Vegetation: Transitional Hardwoods

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

Stocking Level: Overstocked **Basal Area: 120 ft2/acre** (Ranging from 90 to180)

Stand History: Agriculture, boundary lines, recreation, logging, access trails, TSI

Topography: North aspect, moderate/steep slopes, drainages, cove effect, rock exposures

Present conditions for you to consider: Grapevine, access, favor mast trees, mortality, coarse dominants, boundary line, invasives, rich growing site, canopy development, overstocked

Management Recommendations:	**Management Tasks/Year**	
	Required	Year
Maintain access	Yes	Ongoing
Interfering plant control (grapevine, ailanthus, shrubs, vines), identify spot treat	Yes	2023-2033
Maintain interfering vegetation controls	Yes	Ongoing
Mark & maintain boundary lines with paint	Yes	2025-2026
Timber harvest to reduce stocking, capture mortality, remove mature trees & income	Yes	2026-2038

If a timber harvest is recommended, silvicultural method to be used: intermediate thinning/openings

Comments: Stand 2 consists of a main drainage, steep slopes and an overall cove effect on a good rich site. Access is good the species mix is excellent & some good growing stock is to be found. Merchantable & marketable timber is here & a timber sale might be feasible. In a perfect world prior to harvest a few ailanthus, grapevines & shrubby invasives should be treated. Following this ideal pre-harvest activity, an excellent post-harvest condition would be created. Any work on the ailanthus, invasives & grapevine would have great merit & doing this type of work prior to harvest would be more efficient & easier than doing this following a harvest. A harvest also has merit as the stand is overstocked & exhibiting some mortality factors. Boundary is marked & in fair condition. The stand has lots of potential for quality forest management & accomplishing goals. Tree species like oak, hickory & other mast producers should be favored when found. EQIP cost share opportunities can be explored & much suggested improvement work would be eligible. Stand 2 can always be managed as very productive woodland. Maintain & improve access & boundary line going forward. Developing & maintaining canopy structure will be a great help towards controlling interfering shrubby vegetation & enhancing native understory, but one should understand that mature trees removed in a harvest can really open up the canopy & create small openings. Ash trees are dead & gone.

Woodland Stand Description & Management Recommendations

Stand # 3 – 10.4 Acres

Dominant Species: HM, BE, HI, BC, DOG, PAW, HOP, CO, SO, TP, SASS, SPICE, ELM, WO, BY, RO, BO, BW, SYC, BB, BG

Forest Type or Dominant Vegetation: Transitional Hardwoods

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

Stocking Level: Slightly overstocked **Basal Area: 100 ft2/acre** (Ranging from 80 to 160)

Stand History: Agricultural, access corridor, recreation, boundary line, TSI, logging

Topography: Northwest aspect blending into a drainage moderate to steep slopes

Present conditions for you to consider: Access, invasives, walnut, grapevines, riparian drainage, cost share, TSI, good growing site

Management Recommendations:	**Management Tasks/Year**	
	Required	Year
Mark boundary lines	Yes	2025 2026
Maintain & improve access	Yes	Ongoing
Shrubby invasive control identify spot treat when found also grapevine control	Yes	2023-2033
Maintain interfering vegetation controls	Yes	Ongoing
Favor walnut component	No	Ongoing
Light thinning possible harvest	No	After cultural treatments

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

Comments: Explore EQIP cost share opportunities regarding any practices. Shrubby invasive/grapevine control has great merit. Access should be maintained & improved as in all stands. Stand 3 is a rich site index worthy of attention for improvement. The species mix is excellent. A nice walnut component is developing along the lower slope & should be enhanced with invasive species & grapevine control. A few ragged dominants & undesirable soft maple might be harvested if adjacent stands host a timber operation. The ash trees are all dead & no longer a component of the stand. Boundary lines are OK but should probably be remarked in a few years. Autumn olive and multi-flora rose are the worst of the invasive shrubs here. Currently Stand 3 might be a difficult area on its own merits to conduct a merchantable timber harvest due to long access corridors and poorer quality removals. Future potentials are great but current conditions would likely involve too heavy a harvest to make it feasible for quality management. A more attractive harvest opportunity here might involve a few openings & thinning between the openings however other stands are probably a better harvest proposition. Some incidental tree removals might occur here with work in adjacent stands. The priority in Stand 3 is grapevine/invasive work this management cycle.

Woodland Stand Description & Management Recommendations

Stand # 4 – 3.6 Acres

Dominant Species: HI, SYC, ELM, HM, TP, WO, RO, BO, BE, BB

Forest Type or Dominant Vegetation: Transitional Hardwoods

Stand Diameter or Size Class: Pole/Small/Sawtimber

Stocking Level: Fully stocked **Basal Area: 80 ft2/acre (ranging from 50 to 110)**

Stand History: Boundary, agriculture, access corridors, recreation, logging, mining

Topography: south facing toe of slope along drainage, unreclaimed mine

Present conditions for you to consider: Shrubby invasives, access, site index, boundary line, grapevine, canopy development, species mix, sawlogs, stocking

Management Recommendations:	**Management Tasks/Year**	
	Required	Year
Maintain & improve access corridors	Yes	Ongoing
Shrubby invasive species & grapevine control. Release desirable trees.	Yes	2023-2033
Maintain interfering vegetation controls	Yes	Ongoing
Mark & maintain boundary line with paint	Yes	2025-2026
Favor & develop oak component	No	Ongoing

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

Comments: Stand 4 represents the mined southerly facing slope along the north property boundary. Shrubby invasives are of concern, detection & rapid response is the most cost effective way to handle them to reduce spread. In all stands invasives are present. Good woodland potentials are in Stand 4 as unreclaimed & disturbed post mine areas sometimes regenerate into a highly desirable species mix. Stand 4 has this desirable condition with a nice oak component emerging from the past mining history. Explore EQIP cost share possibilities. Develop & maintain access, control grapevine & maintain boundary. Stand 4 would be a nice complement to work upon when conducting practices in Stand 3. Access is difficult & invasives are heavy but desirable growing stock would be released & improved. The drainage here is important and water quality is improving from the past history. Keep tree canopy structure in mind. Stand 4 is stocked but not crowded. Stand 4 has been impacted by mining & disturbance and should be considered a lower priority for management however it should also be brought to its best potential & eventually receive consideration in order to eliminate a source of invasive species incursion. As in other stands any pre harvest work with invasives & grapevine has great merit. Help & advice can be obtained for the good of the order from numerous sources in our region. Species mix is good and some excellent growing stock can be found. Getting Stand 4 onto the radar screen for management is due especially if work in Stand 3 is also conducted.

Woodland Stand Description & Management Recommendations

Stand # 5 – 21.5 Acres

Dominant Species: BE, TP, HM, SYC, ASP, SOUR, HI, RO, WO, BB, PAW, ELM, DOG, SM, SASS, SPICE, REDB, BY

Forest Type or Dominant Vegetation: Transitional Hardwoods

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

Stocking Level: Slightly Overstocked **Basal Area: 90 ft/2/acre (ranging from 50 to 140)**

Stand History: Agriculture, boundary, access, recreation, logging, TSI

Topography: Moderate/steep NE aspect blending into drainages, riparian along north boundary

Present conditions for you to consider: Boundary line, access, shrubby invasives, neighbors, site index, canopy structure, species mix, grapevines, canopy gaps, light harvest

Management Recommendations:	**Management Tasks/Year**	
	Required	Year
Mark & maintain boundary lines	Yes	2025-2026
Favor desirable growing stock trees with practices, canopy development	No	Going forward
Maintain & improve access	Yes	Ongoing
Treatment of shrubby/vine/tree invasives/grapevine identify & control	Yes	2023-2033
Light thinning/patch harvest consideration	No	2026-2038

If a timber harvest is recommended, silvicultural method to be used: intermediate thinning patch openings

Comments: Stand 5 buffers & interfaces drainages important to regional water quality similar to most all stands on the property. Stand 5 contains a very nice cove effect influencing a high site index. Access is moderate with long corridors & moderate/steep slopes. Invasive species including multiflora rose, autumn olive & barberry are a problem & should receive attention. Grapevines on these rich soils can also develop into a problem going forward. Dead ash trees have created canopy gaps & stocking is sort of a hodgepodge with some areas overstocked & others not so much. The large coarse dominants would be candidates for harvest as well as mature and defective trees that can be removed from the stand. Do not overcut; better to make an opening than to high-grade the better trees in some spots. With tougher access, volume for a marketable commercial harvest might be difficult unless some openings were created. Patch openings or small clearcuts would create a new age class of trees on the property & have some great wildlife benefits. In the meantime any work accomplished with access corridors & invasives & grapevines would improve overall conditions. This management cycle explore cost sharing to control interfering vegetation & think about harvesting possibilities. Stand 5 is a good site with great potentials to develop exemplary forest & meet goals & objectives for the property. Seek professional forestry advice regarding the ramifications of harvesting activity here as well as any harvest decision elsewhere on the property.

Woodland Stand Description & Management Recommendations

Stand #6 – 20.1 Acres

Dominant Species: HM, BC, BO, WO, HI, SM, RO, BE, CO, SO, TP, BG, SPICE, ELM, BY, BW

Forest Type or Dominant Vegetation: Transitional/Upland Central Hardwoods

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

Stocking Level: Overstocked **Basal Area: 100 ft2/acre (ranging from 70 to 130)**

Stand History: Agriculture, boundary, recreation, access corridors, logging,

Topography: Steep/moderate SW slope, SW cove, ridgetop

Present conditions for you to consider: Boundary, species mix, shrubby invasives, water quality, grapevine, site index, neighbors, access corridors, harvest considerations, oaks

Management Recommendations:	**Management Tasks/Year**	
	Required	Year
Mark & maintain boundary lines	Yes	2025-2026
Favor desirable growing stock trees (oak) with practices, develop healthy canopy	No	Ongoing
Maintain & improve access	Yes	Ongoing
Treatment of invasives identify & control	Yes	2023-2033
Grapevine control	Yes	2023-2033
Harvest considerations	No	2026-2038

If a timber harvest is recommended, silvicultural method to be used: Thinning/openings/clearcut

Comments: Stand 6 contains dryer site conditions & a better oak management opportunity. Autumn olive and multi-flora rose are a problem & any work with this daunting issue has merit. Stand 6 can best be managed with Stands 5 & 7 as similarities exist. Stocking, history, access & evidence of past logging is similar to Stand 5 & 7. Stand 6 is generally fully/over stocked but can get sparse in some spots creating a hodgepodge of forest conditions. Explore EQIP cost sharing to treat the invasives this management cycle. Keep access viable. There are harvestable sawtimber trees, however further stand development in this management cycle is also a good option & harvesting timber should not have a sense of immediacy. The species mix is good & great potentials exist for reaching goals & objectives. Combining a future timber harvest with Stand 5 & 7 is something to develop & work towards. As is true of the entire region invasive species & interfering vegetation is a daunting & discouraging problem anything addressing this issue will be helpful in Stand 6 & on the property overall. Openings & perhaps even a clearcut on this hard scrabble land would favor oak, wildlife, create marketable volume & a new forest age class. Intermediate thinning with a few openings also might be a consideration for a harvest in Stand 6. The ash component is no longer a viable consideration not only in this stand but upon the entire ownership. Canopy gaps from dead ash can become a problem if invasives move in.

Woodland Stand Description & Management Recommendations

Stand #7 – 14.0 Acres

Dominant Species: HI, TP, SM, PAW, RO, BE, WO, SPICE, REDB, ELM, HM, SO, BC, CO, BG, DOG, SOUR

Forest Type or Dominant Vegetation: Transitional/Upland Central Hardwoods

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

Stocking Level: Slightly Overstocked **Basal Area: 90 ft2/acre (ranging from 60 to 120)**

Stand History: Agriculture, boundary, low impact recreation, access, logging

Topography: Upland/ridgetop southerly aspect, moderate/steep slopes, coves

Present conditions for you to consider: Boundary, species mix, invasives, wildlife habitat, access, tree health, stocking, neighbors, grape arbors, oak, harvest options

Management Recommendations:	**Management Tasks/Year**	
	Required	Year
Mark & maintain boundary line	Yes	2025-2026
Manage and perpetuate grapevine arbors in cove areas	No	Ongoing
Harvest considerations	No	2026-2038
Treatment of shrubby invasives & grapevine identify & control	Yes	2023-2033
Maintain & improve access	Yes	Ongoing

If a timber harvest is recommended, silvicultural method to be used: Intermediate thinning/openings/clearcut

Comments: Soils & site is good for oak management. Stand 7 is interesting in that cultural work has occurred here & a neat grapevine arbor has been developed at the head of the cove in the middle of the stand. Bird activity was greater here than in other stands. A future timber harvest might remove & salvage some individual trees with intermediate thinning however patch openings or even a small clearcut would also add volume/value & habitat to the mix. Invasives & grapevines are a problem & any control efforts regarding this issue would be a plus. Combining a harvest with Stands 5 & 6 would create a good potential timber sale going forward at some point. Access to Stand 7 is reasonable but should be maintained & improved where possible. A few ailanthus trees were noted & should be eradicated prior to any harvesting of timber. Grapevine arbors are interesting features that might continue to be developed as they often are found in canopy gaps & forest openings. Arbors are quite valuable for wildlife escape cover, feeding, nesting & loafing areas. Arbors are difficult to control in that the grapevine seed is heavily incorporated into the soil bank & simply sprouts when the existing vines are controlled & vines simply reform again. The best strategy is to just keep established arbors from spreading & manage them as unique wildlife habitats. A few arbors were observed on the property & can be neat management components.

Woodland Stand Description & Management Recommendations

Stand #8 – 24.4 Acres

Dominant Species: CO, SASS, BE, SM, TP, BO, SOUR, ASP, BG, SPICE, HM, WO, HI, VP, WP, DOG, SO, RO, BASS, ELM, BC, PAW

Forest Type or Dominant Vegetation: Upland Central Hardwoods

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

Stocking Level: Overstocked **Basal Area: 100 ft2/acre (ranging from 70 to 140)**

Stand History: Agriculture, low impact recreation, logging, access, boundary

Topography: Ridgetop, upper slopes, blending into drainages moderate/steep SW slopes, coves

Present conditions for you to consider: shrubby invasives, wildlife habitat, access, grapevines, site index, species mix, cost share opportunities, TSI

Management Recommendations:	**Management Tasks/Year**	
	Required	Year
Treatment of invasives/grapevines identify & control	Yes	2023-2033
Incidental harvest/TSI considerations	No	2026-2038
Maintain interfering vegetation controls & keep access corridors maintained	Yes	Ongoing
Mark & maintain boundary lines	Yes	2025-2026

If a timber harvest is recommended, silvicultural method to be used: light thinning (poorer quality trees)

Comments: Stand 8 is a developing stand on a hard scrabble growing site. Two small patches of pine can be found here. The usual invasives & grapevines can be found & should be treated. A timber harvest is possible but should be very light. This management cycle it would be best to think in terms of some incidental harvest removals that can be implemented when management from adjacent Stands 7, 9 & 10 occurs. Cost sharing for grapevine & invasive species should be explored. Boundary line should be marked & maintained as has been ongoing with the property. Stand 8 should not present any major impediments to equipment or timber harvesting but can really use more time to develop & improve thus harvesting here is lower priority. Access is good. Recreation & cultural activity has been ongoing with noticeable positive results. Some scattered coarse dominants & poor quality trees are inhibiting the stand development but would not be very marketable or enhance a marketable timber sale.

Woodland Stand Description & Management Recommendations

Stand #9 – 8.3 Acres

Dominant Species: CO, BE, SM, TP, BO, SOUR, ASP, BG, SPICE, HM, WO, HI, DOG, SO, RO, ELM, BC, SYC

Forest Type or Dominant Vegetation: Transitional/Upland Central Hardwoods

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

Stocking Level: Overstocked **Basal Area: 100 ft2/acre (ranging from 60 to 130)**

Stand History: Agriculture, low impact recreation, logging, access, boundary, Rd frontage

Topography: Ridgetop, upper slopes, blending into drainages moderate/steep SW slopes, coves

Present conditions for you to consider: shrubby invasives, wildlife habitat, access, grapevines, site index, species mix, eagle acres picnic campsite area, cost share opportunities, TSI, litter

Management Recommendations:	**Management Tasks/Year**	
	Required	Year
Treatment of invasives identify & control	Yes	2023-2033
Harvest considerations	No	2026-2038
Maintain interfering vegetation controls & keep access corridors maintained	Yes	Ongoing
Mark & maintain boundary lines	Yes	2025-2026

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

Comments: Stand 9 is a maturing stand on a variable hard scrabble to high growing site. The usual invasives & grapevines can be found & should be treated. A timber harvest is suggested and should harvest diseased, damaged & mature trees. Combining a harvest with Stand 10 will create a nice marketable timber offering with strategic & value added roadside frontage. Boundary line should be marked & maintained as has been ongoing with the property. The boundary in Stand 9 consists of roadside frontage this frontage need not be marked except only where the boundary line crosses the road frontage as it is obvious that the road is the boundary. Stand 9 should not present any major impediments to equipment or timber harvesting but careful consideration should be given to the rental unit nearby as well as the roadside frontage. Access is good. Recreation & cultural activity has been ongoing with noticeable positive results. Some scattered coarse dominants & poor quality trees are inhibiting stand development & can be handled with a timber harvest operation here. Any invasive species /grapevine work to prep the site prior to a timber harvest would be valuable to the post harvest condition.

Woodland Stand Description & Management Recommendations

Stand #10 – 11.7 Acres

Dominant Species: CO, SASS, BE, SM, TP, BO, SOUR, ASP, SPICE, HM, WO, HI, DOG, SO, RO, ELM, BC,BB, SU

Forest Type or Dominant Vegetation: Transitional/Upland Central Hardwoods

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

Stocking Level: Overstocked **Basal Area: 120 ft2/acre (ranging from 80 to 140)**

Stand History: Agriculture, low impact recreation, logging, access, boundary, utility line, SR 550 & Sweat Road frontages

Topography: Ridgetop, upper NW slopes blending into drainages moderate/steep

Present conditions for you to consider: shrubby invasives, wildlife habitat, access, grapevines, site index, species mix, cost share opportunities, TSI, overstocked, timber harvest

Management Recommendations:	**Management Tasks/Year**	
	Required	Year
Treatment of invasives/grapevines identify & control	Yes	2023-2033
Harvest considerations	No	2026-2038
Maintain interfering vegetation controls & keep access corridors maintained	Yes	Ongoing
Mark & maintain boundary lines	Yes	2025-2026

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

Comments: Stand 10 is a maturing stand on a variable hard scrabble to excellent growing site. The usual invasives & grapevines can be found & should be treated. A timber harvest is recommended accomplishing removal of diseased, damaged & mature trees. Combining Stand 10 with Stand 9 would present a marketable & interesting timber offering. The roadside frontage would be value added & the stand condition lends itself to a need for harvest. Treating grapevines & invasives prior to any harvest would be ideal especially for post harvest stand development. At the very least the dense thicket of autumn olive at the likely log loading area in Stand 10 should be eradicated. Roadside boundary need not be marked except only where the boundary crosses the road. This is because the road is obviously the boundary. Boundary line should be marked & maintained as has been ongoing with the property in interior areas. Stand 10 should not present any major impediments to equipment or timber harvesting. Access is good. Recreation & cultural activity has been ongoing with noticeable positive results. Some scattered coarse dominants & poor quality trees are inhibiting the stand development & should be able to be handled with a harvest operation. When it comes to harvesting timber seek the advice of a professional forester to explore the ramifications of a timber sale & marketing strategies.

Management Activity Schedule

Year(s) Suggested	Mgmt. Units	Required Task?	EQIP Practice?	Acres	Recommendations
2025-2026	All	Yes	No	143.2	Mark & maintain boundary lines with paint (repeat every 5 to 7 years)
2023 -2033 see stand recommendations	All/parts	Yes	Possible?	143.2	Grapevine control to promote tree canopy development (arbors)
2023-2033 See stand recommendations	All/parts	Yes	Yes	143.2	Vine, shrub & tree, invasive species control
Ongoing	All	Yes	No	143.2	Maintain, establish & improve access trails, roads & corridors
Ongoing maintenance treatments	All	Yes	Possible?	143.2	Touchup grapevines & identify & spot treat invasives on previously treated areas
Ongoing	All	No	Possible?	143.2	Consider ecological enhancements
2026-2038	2	No	No	21.2	Timber harvest consideration
2026-2038	5,6,7	No	No	55.6	Timber harvest consideration
2026-2038	9,10	No	No	20.0	Timber harvest consideration
Ongoing	All	Yes	No		Next Site Visit – Woodland reviews are recommended at least once every five years, & no more than ten years, based upon the date of the last actual woodland evaluation conducted by your forester.
2038	All	Yes	Possible?		With methodical efforts to work upon recommended practices, a new woodland stewardship plan can be designed in 15 years & this current plan can be considered a 15 year plan.

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

Invasive species observed include autumn olive, Japanese honeysuckle, bush honeysuckle, multi-flora rose, barberry, ailanthus, others may exist in the mix

When marking boundary lines the frontage along TR 206 (Sweat Road) & SR 550 need not be marked; however, where your boundary meets & intersects the road & at the property corners, mark these locations with paint prominently.

Every stand has worthy improvement projects that can be accomplished & are outlined in the stand descriptions. Coordinate with your resource professionals to scope out projects & prioritize projects. Do not bite off more than you can chew with cost share programs.

ADDENDUMS

Boundary Corner Stand 3

Woodland Resource Descriptions

General Soils Information:
Fairport, Steinsburg, Guernsey-Upshur, Wellston & Westmoreland-Guernsey series soils can be found on this property. The majority of soils are in the Westmoreland-Guernsey series. Soils found are occasional to common in Athens County. Soils present low/medium to excellent woodland site indices for red oak. This means that at age 50, a red oak or (other site index representative tree) can be expected to be 62 to 86 feet tall. Site indices of 74 or greater are considered high site indices & that is good news for 83% of the land base on the property. These high site indices are rich excellent soils with outstanding potentials for trees. Inclusions of wetland conditions are rare in Southeast Ohio & wetlands would be rare on the property. The nice variety of soils adds richness to the ecology. Note soils maps in this report. Doing work & projects on high site index soils sometimes gives one a priority scheme for getting the best results for efforts & expenses. The soils are mostly moderate to steep slopes & erosion can be concerning during periods of wet conditions.

Soil Type(s): FbE, GuD, StE, WdC, WhC, WhD, WhE, WkF

Soil Drainage Class: Well-drained & moderately well-drained

General Description: Soils are medium to very productive; they are common woodland soils in the region. BMP'S & careful management will enhance & preserve soil productivity. Soils present no limitations to any of your goals but some are better suited for impacts than others in terms of equipment & access. The soils can be associated with moderate/steep slope conditions & exposed rocky outcrops.

Site Class: (using Woodland Productivity): low/medium/high (mostly high)

Rock & Soil Exposures Stand 3&4

Timber Information:

Productivity & potentials for goals are quite good due to topography, access & site indices. All stands are fully stocked or overstocked woodland with Stand 1 being a minor exception. Species mix is excellent & decent growing stock can be found. Oak & other mast producing species should be favored if possible in management projects. Walnuts are few & far between except in Stand 3 & should also be favored when found in the mix. White ash is for all intents & purposes no longer a viable stand component & most all are dead & gone due to EAB mortality. It is not worth a specific harvest just to salvage ash alone. The vast majority of the property can be considered transitional/upland central hardwoods. Grapevine control, invasive species control, access road, & general upkeep are needed as is typical across the entire Southeast Ohio region. Grapevine control will enhance forest canopy structure & serve to help with invasive species incursions as healthy dense canopy will suppress some of the aggressive shrubby invasives. Stands contain some patchy hodgepodge variability due to canopy gaps. Stands 9 & 10 are overstocked & more uniform & could form the nucleus of a nice timber harvest opportunity with value added roadside proximity. As each area is improved it will influence the surrounding stands in a positive fashion. If a need for income becomes pressing, harvesting could be considered. Other stands approaching harvest possibilities would be Stands 2, 5, 6 & 7. Addressing the shrubby invasives & grapevine prior to a harvest would be a good strategy as canopy gaps from harvesting could fill in with invasives. Openings can also offer a number of management opportunities for goals & objectives. Industry interest in harvesting will be reasonable as the woodlands contain valuable species & a component of mature timber. Historically logging has occurred but agriculture & the rental habitations have been the dominant footprint on this old hard- scrabble hill farm property. Coarse dominants are large over-mature dominating trees & should be evaluated on a case-by-case basis regarding improving the stands. Coarse dominants can be in poor condition & value otherwise they would have been harvested. They do illustrate the potential for trees on the property & can be quite complimentary to wildlife, aesthetics & the landscape. Future inventory & management cycles will continue to evaluate the forest for appropriate harvest suggestions. Encroaching invasives & grapevines should be considered high priority. This Forest Management Plan would endorse small silvicultural openings in stands that might receive harvesting as well as more formalized larger clearcuts. The forest will & has positively responded to improvement efforts. Riparian drainage buffer areas, especially Stands 3 & 4 are best managed by improving the attributes currently found. Cost sharing with the USDA-NRCS through the EQIP forestry program has some great possibilities & should be explored when implementing projects on the property. Vernal pools might be found; however water sources are somewhat sparse on the property other than upland drainages. Many timber buyers would like to put your forest on the back of a log truck. Be cautious in how you harvest/market any timber with a primary outlook towards improving the forest condition in the long run. Some of the poorer quality trees should be removed in the harvest process across all size classes & diameters. Do not high grade your forest stands (only taking the best & leaving the rest). Marking your timber & knowing what it's worth prior to any harvesting would allow for a better decision process & comfort level going forward. This is a wonderful woodland property with great potentials & a nice forest condition with many management opportunities.

Wildlife:

Excellent upland forest habitat conditions are found on the property. Mature woodland, lots of edge, successional stands, snags, canopy gap areas & neighboring woodland ownerships create a diverse & healthy wildlife habitat. Drainages, a riparian corridor (Stands 3, 4 & 5), possible vernal pools, habitat edges, grapevine arbors & openings are scattered about the land. Coarse woody debris, variable soils & terrain features lend even more variety to the landscape. Deer sign was observed everywhere & they are quite numerous. Also observed were songbirds, squirrels, rabbits & raptors. Small mammals 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 to tamp down deer populations & assist with management goals & objectives. There appears to be plenty of nesting, feeding, loafing, escape cover & habitat for many species of wildlife. Wildlife practices can include openings in timber areas, vernal pool considerations, food plots, pollinator enhancements & specific areas dedicated to wildlife (vernal pools, grapevine arbors, food plots, openings, wetlands & riparian corridors). Proposed projects this management cycle will compliment wildlife management goals for the property. Further guidance & assistance might be obtained through the ODNR private lands biologist in Athens, 740-589-9957, or with some of the programs offered with the USDA-NRCS.

Stand 3 Shed antler on forest floor

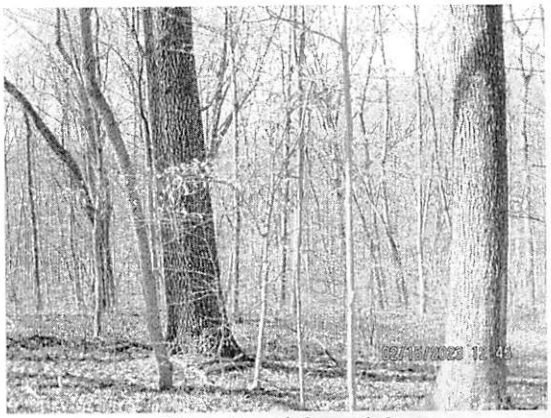
Water:
The property is defined by mostly upland water influences. Drainage corridors flow into & form Opossum Run which then becomes Federal Creek. Healthy forest found here contributes great ecological services to the region. Currently the property is enhancing water quality & has excellent filter strips & buffers along drainages & riparian corridors. Management activities need to have minimal impacts to water quality. Vegetated corridors along drainages filter important areas of mostly private ownerships. The woodlands are rich in plants & some aquatic life forms. Drainages enter the Opossum Run corridor & are influenced by agriculture & the rural urban interface. The soils are a filter & act as a unique bio-retention feature.

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

Hilly-to-steeply sloped terrain is more subject to site disturbance & subsequent soil erosion & sedimentation. Forest management can be accomplished on these 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 impacts up away from the small 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 disturbed areas.

During timber harvest activities follow the Best Management Practices outlined in the Ohio State University Bulletin #916-BMP's for Erosion Control for Logging Practices in Ohio. This booklet is available online at 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 Standards for Silvicultural Operations.



Woodland Stand 9

Forest Health:
This property shows good vigor, but worrisome problems were noted. Oak trees are present & should be favored with management options. Oak is a keystone species that triggers many ecosystem functions & attributes. Monitoring tree health, especially the oaks, would have merit. A majority of woodlands are overstocked. Crowding & increased stocking is a normal process that happens as forests mature. Overstocked stands indicate that the woodland can sustain a harvest. Sometimes mortality from competition occurs in overstocked stands. The woodlands are fully to overstocked & have taken a long time (years) to develop relatively undisturbed or lightly managed. Following the management suggestions in this plan should guide management into appropriate decisions for improving the overall forest condition. Concerning forest health, a need to harvest in Stands 2, 4, 5, 6, 7 & 8 is not urgent but possible. Because of maturing timber conditions within Stands 9 & 10 a harvest is suggested. Deer browsing can be worrisome for future forest growth & species diversity. Controlling invasives & grapevines should be a priority. Grapevines & invasive shrubs/trees/vines are a serious problem on all the woodland sites. Maintaining access corridors is one of the best places to start. Good access is essential for proper management & enjoyment of the property. The invasives are always a real challenge & they can become an invasive species quagmire. Invasives are the most daunting & difficult forest health problem on the property currently & unfortunately only get worse over time without management intervention. Curiously walnut is scarce upon the property except in Stand 3. The best place to find these trees would be Stand 3& it is possible historical high grade logging eradicated the walnut elsewhere. Grapevines were also less abundant in some stands indicating some good TSI work has occurred in the past.

The emerald ash borer (EAB) is an invasive insect from Asia that 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.

The ash component here is greatly reduced & ash is essentially no longer a component of your stands. The understory has a large debris field of dead ash in some spots. Overall ash trees on the property are currently infested with EAB & will die thus contributing to further reducing stocking & thinning the stands. Commercial harvest of the ash is marginally feasible due to the advanced mortality & infestation of the EAB, but some ash might be salvageable as firewood, chipwood, pulpwood & perhaps low grade sawlogs. Ash was never a major component of stands found here but only spotty in some areas.

Invasives are always making inroads. Learn to identify these worrisome plants & consider spot treatments where a few scattered ones may be found as well as perhaps a USDA-NRCS EQIP cost share project. Exploring the possibility of EQIP funding can be quite helpful.

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


Dangerous dead ash Stand 9

Wetlands:

Wetlands are extremely important for water quality they also provide unique habitats. Wetlands 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 that these important components of the landscape improve the aesthetics & overall enjoyment of the property. Vernal pools might be found upon this property. These areas are worth noting & managing 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. A formal wetland condition might be found as an inclusion in some soils in our region. This would be special & create a noteworthy habitat with unique plants & wildlife. Look for indications of wetland development in the bottomland areas of the property. Having some wetland soil inclusions would be a wonderful feature & greatly enhance 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 the Timber Rattlesnake, the Northern Harrier, the Indiana Bat, & the 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 & 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. Rock shelters & old home sites sometimes can be found that might harbor archeological history even prior to European settlement. The burned out barn footprint & even old dumps scattered about are becoming of interest to historians.

Recreation:

Each forest has a unique history & character & this continues to build under your stewardship. This forest is used for hunting, hiking, aesthetics, production of wood products, nature study & 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. Access improvement will be a major influence upon the management of the property going forward allowing for more efficient projects & enjoyment of the property.

Aesthetics:

Forest aesthetics is often associated with older, more mature forests; 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.

Eagle Acres Campsite Stand 9

Other Resources:

Associated forest resources vary somewhat from forest to forest but often include a variety of herbaceous plants present 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 & other arthropods 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. Arthropods are essential to the proper functioning of a healthy ecosystem & many bees, wasps, flies, spiders & 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.

Stand 2 Recent blowdown

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

Properties & homes in Ohio are not immune to the risks of fire & fire-related damage. Spring & 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 homesite, maintain good access for fire vehicles, create a defensible space around your home & outbuildings by removing flammable materials such as brush, leaves, sticks, & twigs; remove these from roofs & gutters, too. Landscape around buildings with less flammable plants & materials, avoid evergreens by or near the home, keep an outdoor water source, & avoid outdoor burning. For more information on outdoor fire safety & 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 & 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, & November between the hours of 6:00 a.m. & 6:00 p.m. 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

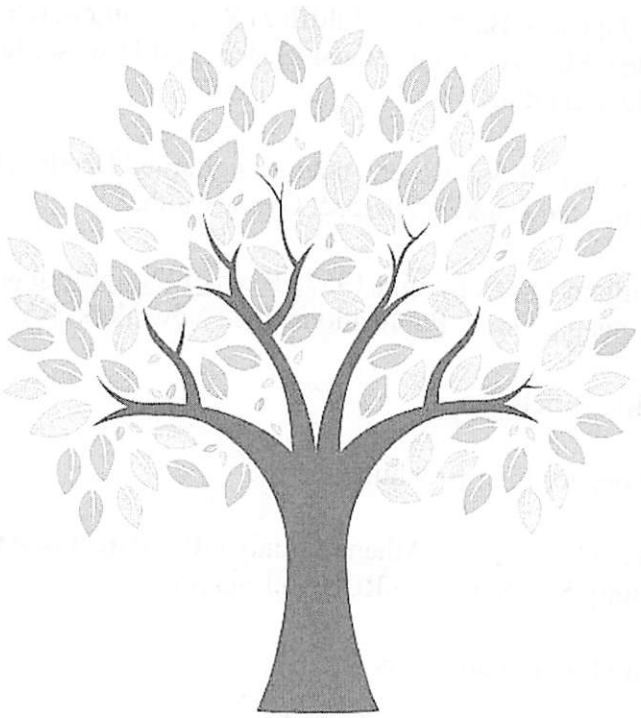
Carbon Cycle – healthy, sustainably-managed forests can help to reduce atmospheric carbon:

When you, as a forest landowner, choose to maintain your forest land rather than convert it to a non-forest use, you are making a significant contribution to the carbon sequestration equation: 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, & by re-establishing woodlands on non-forested land.

In time & with conceptual ideas being discussed in various venues, active forest managers may find opportunities for carbon trading & participation in ecosystem service markets. For further information about carbon sequestration, forestry, & other carbon markets, you may search for the Chicago Climate Exchange (CCX). There may also be other organizations (both for- & non-profit) 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) & Terrapass (www.terrapass.com). Reference to these listed sites does not include an endorsement.

Forestry Terms – forestry terminology for landowners, professional foresters, & others:

Consistent forestry terminology is essential to anyone interested & involved in the science, management, & 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, & consistency in communication of forestry terms. You may access "The Dictionary of Forestry" for free from SAF (www.dictionaryofforestry.org). If internet access is not available, one may purchase a printed version from SAF (toll free 866-897-8760).



PUBLICATIONS LIST

Charles F. Mayzlik

WOODLAND STEWARDSHIP MANAGEMENT PLAN

- Ohio Woodlands Water Wildlife Newsletter- Fall 10, Winter 11, Fall 12, Spring/Summer 14, Winter 17, Summer 17, Winter 17/18, Summer 18, Winter 18, Fall 19, Winter 20, Winter 22
- Invasive Plants in Pennsylvania Brochure
- Fact Sheets-Japanese Barberry, Multiflora Rose, Autumn Olive, Bush Honeysuckles, Mile-A-Minute Weed, Beech Leaf Disease, Japanese Honeysuckle, Ailanthus
- Fact Sheets-Emerald Ash Borer, Asian Longhorned Beetle, Hemlock Wooly Adelgid, Thousand Cankers Disease, Gypsy Moth,
- Harlow, William M., Copyright 1957, Trees of the Eastern and Central united states and Canada, Dover Publications, Inc., New York, NY 10014
- Misc Wildlife Brochures
- Contact a Forester First Brochure
- Misc. Maps: USGS Topo, Athens County GIS, Parcel & Air Photo Maps, Athens County Soil Survey, NRCS Soil Survey
- Outdoor Fire Safety Pamphlets
- FMP from Caldwell Timber Consulting LLC April 2012 to April 2022
- Key to Species Abbreviations
- Pollinator Habitat Brochures
- Woodland Stewardship Appendix

		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
CO	CHESTNUT OAK			
CHINK	CHINKAPIN OAK		CUC	CUCUMBER TREE
DOG	DOGWOOD		DSC	DOMESTIC SWEET CHERRY
ELM	ELM		HACK	HACKBERRY
HM	HARD MAPLE		HAW	HAWTHORN
HI	HICKORY		HL	HONEY LOCUST
HOP	HOPHORNBEAM		IW	IRONWOOD
NP	NATIVE PINE		NS	NORWAY SPRUCE
PAU	PAULOWNIA		PAW	PAW PAW
PERS	PERSIMMON		PO	PIN OAK
REDB	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
			VP	VIRGINIA PINE
WA	WHITE ASH		WIL	WILLOW
WO	WHITE OAK		WP	WHITE PINE

Invasive Species noted: Autumn Olive, Japanese Honeysuckle, Ailanthus, Multiflora rose, Barberry, Bush Honeysuckle, (others might be in the mix as well)