

# *Woodland Stewardship Management Plan*

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**Owner's Information:**

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

Owner: The Janet M. Kemerer Revocable Trust

Signed: Janet M. Kemerer  
Janet M. Kemerer -Trustee

Signed: John Scott Irwin  
John Scott Irwin-Trustee

Date: October 23, 2023

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**Preparer's Information:**

Prepared by: Dean A. Berry

Signature: Dean A. Berry

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

Date: September 29, 2023  
*Field Inspection Date*

740-541-4647 mobile  
fatlabtreefarm@gmail.com

This plan is valid for the period beginning October 13<sup>th</sup>, 2023, and ending October 12<sup>th</sup>, 2033.

Plan Status: New for this landowner. This acreage was included in a Forest Stewardship Plan developed for Tammy & Lee Atha (previous landowners) in August of 2020 and enrolled in OFTL #18827

**Inventory Method:** On Site Property Review

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Signed: \_\_\_\_\_  
Janet M. Kemmer -Trustee

Signed: \_\_\_\_\_  
John Scott Kemerer - Trustee

Date: October \_\_\_\_\_, 2023

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PARID: N010010022001  
ATHA TAMMY D

MINERAL RD

Parcel

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Address	MINERAL RD
Unit	
Class	A - AGRICULTURAL
Tax Roll	
Land Use Code	101 - A - CASH GRAIN OR GENERAL FARM
Neighborhood	00013000 - N01
Total Acres	
Taxing District	N01
District Name	WATERLOO TOWNSHIP
Gross Tax Rate	72.31
Effective Tax Rate	49.776073

Owner

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Owner	KEMERER JANET M TRUSTEE JANET M KEMERER REV TRUST
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Tax Mailing Name and Address

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Mailing Name 1	THE JANET M KEMERER REVOCABLE TRUST
Mailing Name 2	
Address 1	2358 MINERAL ROAD
Address 2	
Address 3	NEW MARSHFIELD OH 45766
Mortgage Company	
Mortgage Company Name	
Treas Code	

Legal

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Legal Desc 1	SEC 21 FRA 31 112AC FOREST LAND CERT # 18827
Legal Desc 2	90.667 AC
Legal Desc 3	
Legal Acres	90.667

# *Woodland Stand Description and Management Recommendations*

## **General Definitions**

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

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

**Seedling** – DBH is not measurable  
**Sapling** – 1” to 4” DBH  
**Poletimber** – 5” to 11.5” DBH  
**Small Sawtimber** – 12” to 16” DBH  
**Medium Sawtimber** – 18” to 22” DBH  
**Large Sawtimber** – 24” DBH and larger

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

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

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

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

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

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

## **Crown Classes:**

**Dominate** – Crown extends above canopy, direct sunlight to the top and sides of crowns  
**Co-Dominate** – Crown within the main canopy, direct sunlight to the top and limited on sides  
**Intermediate** – Crown in the lower part of main canopy, limited sunlight  
**Overtopped** – Crown entirely under the main canopy, no direct sunlight

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

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

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

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

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

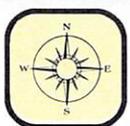
# Woodland Location Map

The Janet M Kemerer R. T. Tract  
Section 21 FRA 31  
WaterlooTwp., Athens Co., OH  
90.667 Ac  
Parcel # N010010022001



Legend  
The Janet M Kemerer R. T. Ownership

October 2023



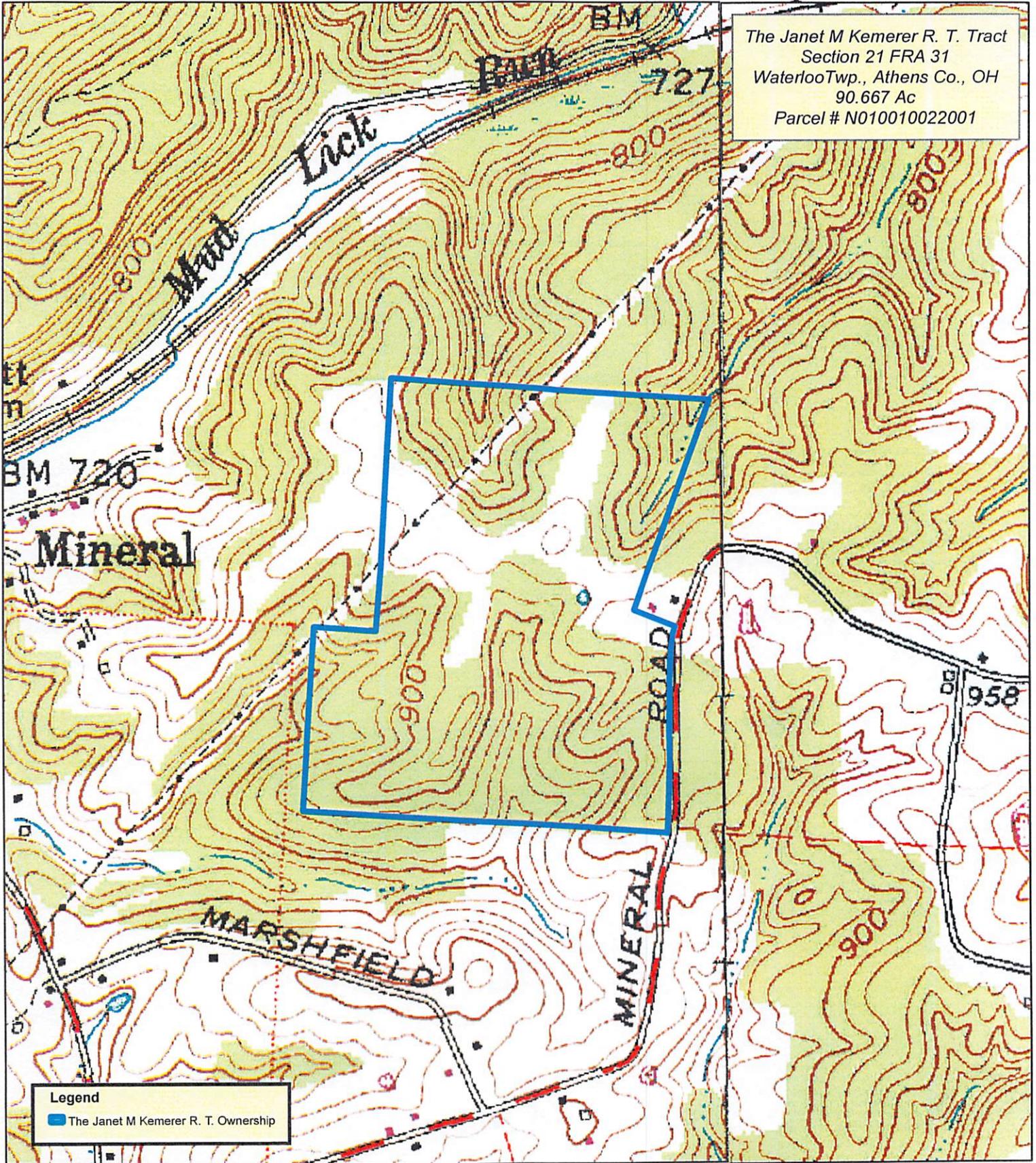
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Prepared by Dean A. Berry,  
ACF Consulting Forester  
TSP 10-6547



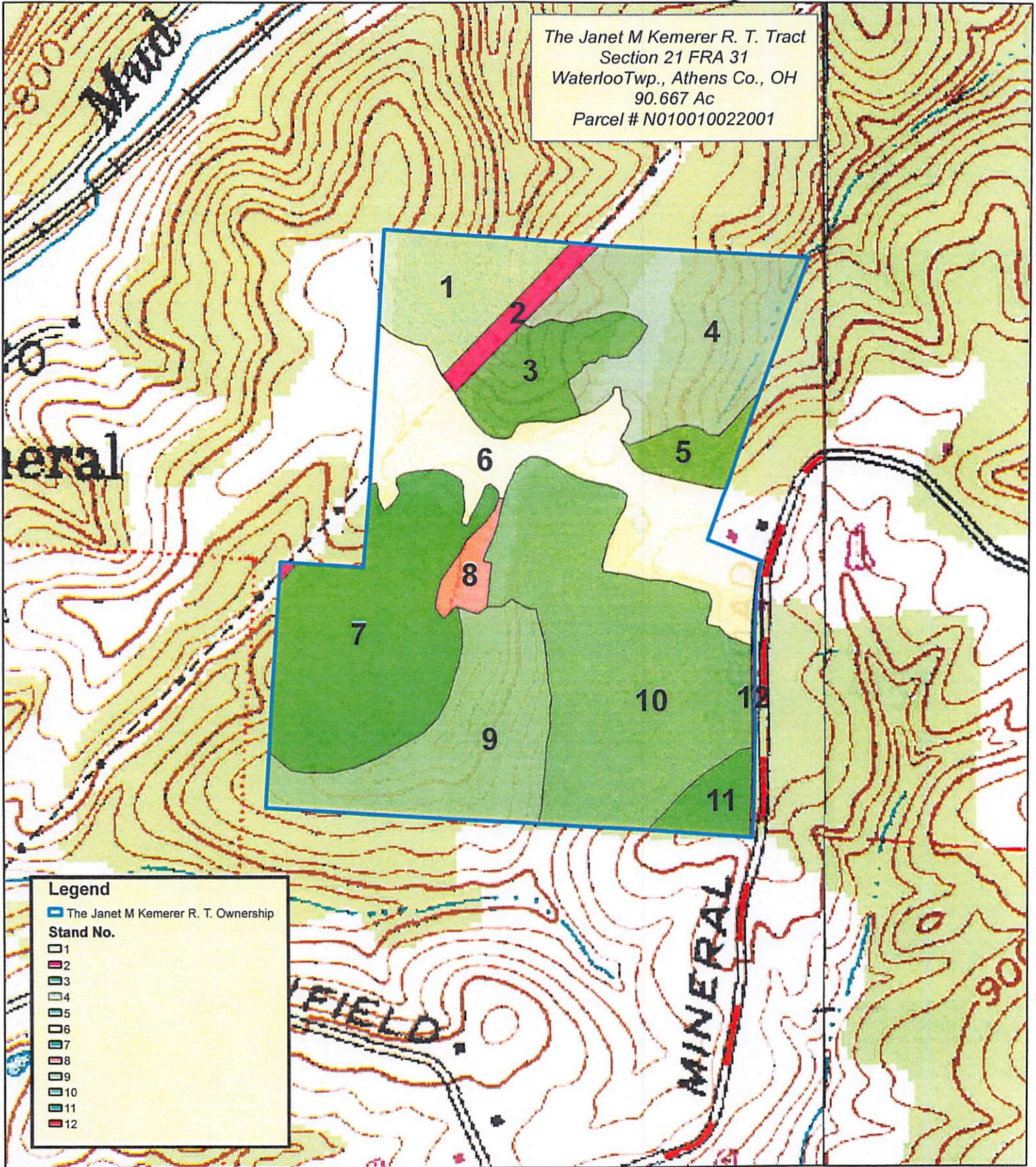
Disclaimer: This drawing is not an actual survey,  
and is for general information purposes only.

# Woodland Location Map



# Woodland Stand Map

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WaterlooTwp., Athens Co., OH  
90.667 Ac  
Parcel # N010010022001



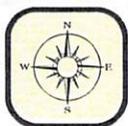
**Legend**

The Janet M Kemerer R. T. Ownership

**Stand No.**

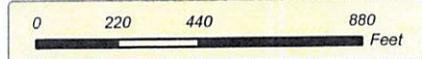
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October 2023



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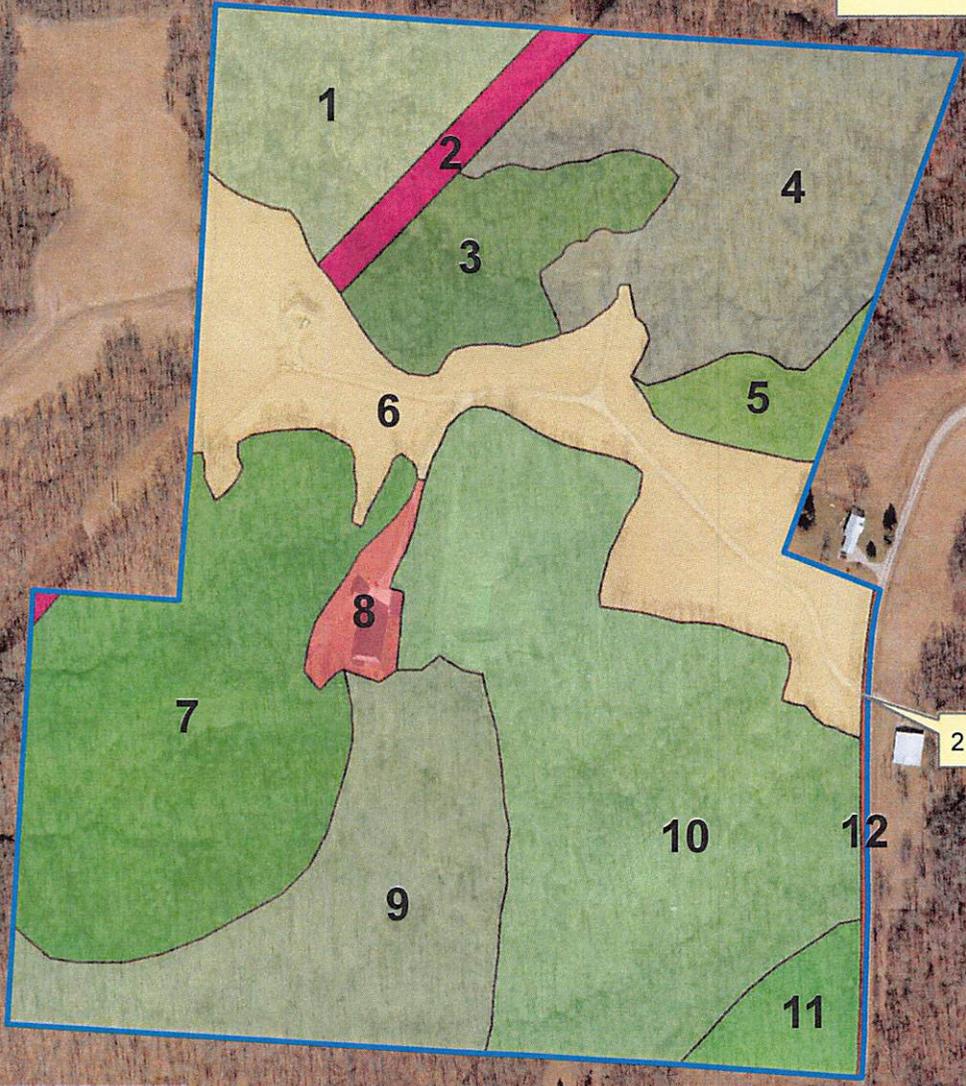
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# Woodland Stand Map

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Section 21 FRA 31  
WaterlooTwp., Athens Co., OH  
90.667 Ac  
Parcel # N010010022001



2358 Mineral Rd.

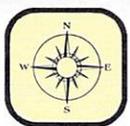
Legend

The Janet M Kemerer R. T. Ownership

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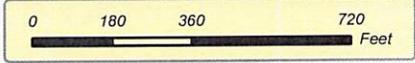
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## ***Woodland Stand Description and Management Recommendations***

**Stand # 1** - 5.8 acres

**Dominant Species:** Yellow Poplar, Black Cherry, Sassafras, Red Maple, Sugar Maple, Dogwood, Red Bud, Aspen, Sycamore, with some White Oak, Red Oak spp. & Walnut.

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

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

**Stocking Level:** Over stocked with saplings

**Stand History:** Harvesting - Commercial clearcut, area cut hard in 2012

**Topography:** Gently sloping, overall, steep side slope near drainage

**Invasive plants or insects impacting this stand:** scattered autumn olive, privet and Japanese vine honeysuckle, bush honeysuckle, and a clump of ailanthus along property line.

**Stand Description:** This area covers the wooded slope in the NE corner of this farm. This area was heavily harvested in 2012 but has regenerated well. Skidding trails in this area are steep and have rutting – BMP's recommended. Overall, this area is a jungle, and difficult to traverse except on the paths. This is a moist soils site and will develop into a poplar/maple stand. At some point in time crop tree release work will be needed to help release the scattered oak sapling in this area. Non-native invasive species need addressed first. The AEP transmission line separates this stand from Stand 4, which is similar in makeup.

**Past management activities completed in this stand:** some work has been done on trails, property lines located & painted with blue paint, fencing along the field edge.

<b><i>Management Recommendations:</i></b>
Continue to mark all property boundaries with paint, redo every 5 yrs. or as necessary to remain easily visible to help reduce trespass.
Work on eradicating the non-native invasive species in this stand before populations increase. Ailanthus should be a priority.
Maintain trails in this areas for stand access.

**Is a timber harvest recommended?** No

**Comments:** Area will continue to develop as time passes. Non-native invasive species will be an issue because of the open canopy and the adjacent powerline r/w.

**Desired Future Conditions:** Allow to mature into a fully stocked hardwood stand again.

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

**Desired Stand Structure:** Even Aged

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

**Stand # 2 - 1.6 acres**      Non-Forested Areas – electric line right-of-way

**Dominant Species:** N/A

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

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

**Stocking Level:** N/A

**Stand History:** N/A

**Topography:** Rolling

**Invasive plants or insects impacting this stand:** autumn olive/privet along edges.

**Stand Description:** This area includes both of the segments of the overhead powerline rights-of-way that pass through forested stands on this tract. This is a large transmission line (recently rebuilt in 2019) located in the NE section of the farm. The part of this line that passes through Stand 6 (field area) is not included in this stand area, because it can be maintained when mowing the field.

**Past management activities completed in this stand:** The large transmission line was rebuilt in 2019 with new towers being set, some mowing of these areas has been done in the past.

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

Annually inspect for invasive species along right of way edges, work on eradicating any found as time permits – Japanese Stiltgrass is an issue in this area.

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

**Comments:** These areas will be consistent “trouble” area for non-native invasive species to become established in and then spread into adjacent forest stands.

**Desired Future Conditions:**

**Desired Forest Type or Dominant Vegetation:**

**Desired Stand Structure:**

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

**Stand # 3** - **4.6** acres

**Dominant Species:** White Ash (dead), Sugar Maple, Red Maple, Black Oak, White Oak, Aspen, Black Cherry, Basswood, Black Locust, Hickories, Yellow Buckeye

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

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

**Stocking Level:** Fully stocked

**Stand History:** Harvesting - "Select cut" 2012

**Topography:** Gently sloping

**Invasive plants or insects impacting this stand:** autumn olive, scattered grapevines.

**Stand Description:** Again, this area was part of the 2012 harvest. Compared to adjacent Stand 4, this area has adequate stocking of trees that provide some crown closure, reducing the amount of vegetation in the understory. This area has some steep side slope areas. Ash trees mortality because of EAB. Quality young sugar maple trees in this area. This area will develop into a quality sawtimber stand because of the species composition present.

**Past management activities completed in this stand:** Trails somewhat maintained in this area.

<b><i>Management Recommendations:</i></b>
Maintain trails for access in this area.
Cut the scattered grapevines from "crop" trees identified in this area
Inspections for non-native invasive species – reduce Autumn Olive as time permits

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

**Comments:** Surprising that this area was not harvested as heavily as adjacent areas. This woods have great potential.

**Desired Future Conditions:** Maintain this area as an uneven aged hardwood stand. Promote the oak/sugar maple development for timber and hard mass potential.

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

**Desired Stand Structure:** Uneven Aged

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

**Stand # 4 - 12.98 acres**

**Dominant Species:** White Oak, Red Maple, Yellow Poplar, Chestnut Oak, Am. Beech, Black Oak, Scarlet Oak Sugar Maple, Yellow Buckeye, Hickory spp., Dogwood, Red Bud, Sassafras, Am. Elm, Aspen, Sycamore

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

**Stand Diameter or Size Class:** Sapling/Poletimber with scattered sawlog trees throughout

**Stocking Level:** Under stocked in some areas, parts fully stocked patches & steeper slope areas

**Stand History:** Harvesting - Diameter limit 2012

**Topography:** Draws/Ravines, 2 small hollows, side slopes & ridgetop areas.

**Invasive plants or insects impacting this stand:** a variety of non-native invasive species along openings -autumn olive, privet, barberry, bush honeysuckle, Japanese stiltgrass.

**Stand Description:** Again, this area was heavily harvested, and the residual stand is now unevenly stocked with scattered small sawlog/pole sized trees. It appears numerous large oak trees were cut from the area. This stand included several hollows and covers the entire mid to lower slope areas along most of the northern property line. Access road to the transmission line was constructed in this area. An issue in this area is the amount of damage done to residual trees –barked up stems, broken treetops, and damaged roots. Oak regeneration appears to be flourishing. Several vernal pools noted in this area will benefit wildlife. The logging trails that are utilized as access trails had been maintained and in good condition, no erosion issues noted.

**Past management activities completed in this stand:** Property lines were located & painted, some trails maintained. New access road to powerline.

<b><i>Management Recommendations:</i></b>
Keep property lines painted
Continue maintaining access trails – BMP's to be constructed to prevent erosion
Work on eradicating the non-native invasive species identified in this stand

**Is a timber harvest recommended?** No

**Comments:** A lot of diversity in this area – openings, sapling patches, areas only slightly disturbed. Epicormic branching on the White Oak stems noted.

**Desired Future Conditions:** Allow to mature into a fully stocked hardwood stand again.

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

**Desired Stand Structure:** Uneven Aged

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

**Stand # 5 - 2.0 acres**

**Dominant Species:** White Oak, Red Maple, Black Oak, Red Oak, Hickory Spp., Sugar Maple, Yellow Buckeye, Sassafras, Yellow Poplar, Chestnut Oak, Am. Beech, Dogwood, Red Bud

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

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

**Stocking Level:** Fully stocked overall, some areas with canopy gaps

**Stand History:** Harvesting - "Select cut" 2012

**Topography:** Gently sloping to steep side slope area

**Invasive plants or insects impacting this stand:** along field edge – winged burning bush, privet, autumn olive, bush honeysuckle, barberry.

**Stand Description:** This small area is similar in composition, size of remaining stems, and basal area as Stand 3. Basically, a patch of bigger trees. The scattered larger diameter Beech, Buckeye and Maple trees, as well as some low-grade Oak trees. This small area is in good condition considering the amount of logging activity that was done in adjacent areas. This will become a quality sawtimber area in the future.

**Past management activities completed in this stand:** Property lines were located and painted - note – east line still needs marked. The area was harvested in 2012. Fencing project along upper edge.

<b><i>Management Recommendations:</i></b>
Work on painting the property lines, re-do as necessary to remain easily visible.
Continue maintaining access trails – BMP's to be constructed to prevent erosion
Work on eradicating the non-native invasive species identified in this stand

**Is a timber harvest recommended?** No

**Comments:** This area is higher on the priority list to work in because of the non-native invasive species along the field edge area. The full canopy wooded area has an open understory.

**Desired Future Conditions:** Allow to mature into a fully stocked hardwood stand again.

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

**Desired Stand Structure:** Uneven Aged

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

**Stand # 6 - 12.9 acres** Non-Forested Area – Agricultural Use Areas

**Dominant Species:** N/A

**Forest Type or Dominant Vegetation:** grasses, broadleaf plants, planted conifer trees

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

**Stocking Level:** N/A

**Stand History:** N/A

**Topography:** Nearly level

**Invasive plants or insects impacting this stand:** a variety of non-native invasive species found along field edges -autumn olive/privet are the major species of concern along with Japanese stiltgrass.

**Stand Description:** This area covers the ridgetop fields and fenced pasture areas. In 2018 the previous Owners, Tammy & Lee Atha planted conifer trees around the edges of the field areas and then began the field fencing project. The overhead electric transmission line passes over the western end of this area. The entire area had been kept mowed by the previous owners.

**Past management activities completed in this stand:** Previous Owners -fencing, fields mowed, 3000 White Pines and 200 Norway Spruce planted in 2018.

<b><i>Management Recommendations:</i></b>
Annually inspect for invasive species along field edges & work on the eradication of any found
Maintain tree planting areas, continue planting in areas as desired.
Continue fencing project to keep livestock from adjacent woodlands.

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

**Comments:** Well-maintained clean field. Tree plantings around the perimeter are doing well.

**Desired Future Conditions:** Maintain fields.

**Desired Forest Type or Dominant Vegetation:**

**Desired Stand Structure:**

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

**Stand # 7 - 15.3** acres

**Dominant Species:** Red Maple, American Beech, Sassafras, Sugar Maple, Yellow Poplar, Hickory spp., some White Oak, Chestnut Oak, Black Oak

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

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

**Stocking Level:** Under stocked in most areas with quality trees

**Stand History:** Harvesting - "Select cut" 2012

**Topography:** Draws/Ravines and upper slope area

**Invasive plants or insects impacting this stand:** scattered autumn olive along powerline edge, multi-flora rose, light scattered grapevines, ailanthus (small patch), Japanese stiltgrass.

**Stand Description:** This stand was heavily harvested with all the large oaks/poplar trees being removed, leaving beech/red maple/small diameter poplar. Larger trees not harvested are found mainly along the property lines and powerline area. The understory varies from completely open to very brushy, depending on the amount of canopy closure. A small deep raving limits some vehicular access to portions of this stand. Surprisingly, the drainage is not designated as an intermittent stream drainage. Too many low-quality beech trees remain in this area.

**Past management activities completed in this stand:** Property lines were located and painted. Skid trails are graded and grass covered, some maintained as access trails.

<b><i>Management Recommendations:</i></b>
Work on eradicating the grapevines in this stand
Continue maintaining access trails – BMP's to be constructed to prevent erosion
Continue to mark property lines with paint, redo every 5 years or as needed.

**Is a timber harvest recommended?** No

**Comments:** This area will produce quality sawlog poplar trees given time. The brushy understory is great for wildlife.

**Desired Future Conditions:** Allow to mature into a fully stocked hardwood stand again.

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

**Desired Stand Structure:** Uneven Aged

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

**Stand # 8** - 1.0 acres      non-forest stewardship \_ semi-wooded residential area

**Dominant Species:** Grasses, scattered trees & shrubs near building

**Forest Type or Dominant Vegetation:** NA

**Stand Diameter or Size Class:** NA

**Stocking Level:** NA

**Stand History:** Other

**Topography:** Gently sloping house site

**Invasive plants or insects impacting this stand:** Ailanthus at the west edge of this area - noted in adjacent stand descriptions. A few Autumn Olive clumps on the field edge, Japanese stiltgrass.

**Stand Description:** This area covers the house & yard space. Lee & Tammy built this house in 2018. Also included in this area are the adjacent outbuildings.

**Past management activities completed in this stand:** mowing around site, fencing of adjacent field area.

<b><i>Management Recommendations:</i></b>
Work on the eradication of any invasive species found (Ailanthus - Autumn Olive) along yard edges.

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

**Comments:** This is a private secluded site for a residential area.

**Desired Future Conditions:** NA

**Desired Forest Type or Dominant Vegetation:**

**Desired Stand Structure:**

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

**Stand # 9** - 11.0 acres

**Dominant Species:** White Oak, Red Oak, Yellow Poplar, Chestnut Oak, Red Maple, Sassafras, Black Oak, Sugar Maple, Yellow Buckeye, Hickory spp.

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

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

**Stocking Level:** Fully stocked in most areas of the stand

**Stand History:** Harvesting - "Select cut" 2012

**Topography:** Gently sloping ridgetop and east facing slope area

**Invasive plants or insects impacting this stand:** light scattered grapevines, privet, a few autumn olive, barberry, Japanese stiltgrass.

**Stand Description:** Again, this stand is a recovering "selectively" harvested hardwood area with a mixture of desirable tree species present. Overall, post-harvest - this area has a good mixture of young oak/maple/hickory trees present. The understory varies from completely open, on the ridgetop area, to brushy with spice bush on the slope. This stand still has almost complete crown closure. Most of this area is uniformly stocked with some gaps where small group selection harvesting was done. The trees are mainly of the pole/pulpwood size classification, with an occasional small sawlog tree present.

**Past management activities completed in this stand:** Property lines were located and painted with blue paint. Skid trails were re-graded and have been maintained.

<b><i>Management Recommendations:</i></b>
Work on eradicating the grapevines in crop trees / barberry in this stand
Continue maintaining access trails – BMP's to be constructed to prevent erosion
Continue to mark property lines with paint, redo every 5 years or as needed.

**Is a timber harvest recommended?** No Not in this 10-yr. management period.

**Comments:** This is one of the nicer wooded areas on this farm because it was only lightly harvested. Area will continue to develop into an Oak sawtimber stand again as time passes.

**Desired Future Conditions:** Allow to mature into a fully stocked hardwood stand again.

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

**Desired Stand Structure:** Uneven Aged

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

**Stand # 10** - 21.2 acres

**Dominant Species:** White Oak, Red Maple, Yellow Poplar, Chestnut Oak, Sassafras, Black Oak, Sugar Maple, Yellow Buckeye, Aspen, Sourwood, Am. Beech, Dogwood, Red Bud

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

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

**Stocking Level:** Under stocked in some areas, parts fully stocked with desirable tree species

**Stand History:** Harvesting - Diameter limiter "logger selection" in 2012

**Topography:** Gently sloping, side slope areas, some benches, draws and ravines

**Invasive plants or insects impacting this stand:** scattered autumn olive, bush honeysuckle, privet, barberry, multi flora rose, Japanese vine honeysuckle, Japanese stiltgrass.

**Stand Description:** This area covers the entire east side of the large, wooded hollow located below the mowed field near the residence. This area was heavily harvested in 2012 with most of the desirable, commercial sized trees being removed. Trees remaining are mainly smaller diameter Oaks with some Beech, Maple trees. The area is brushy: spice bush, autumn olive, multi flora rose. Larger trees are found throughout this area in the ravines. Many of these trees show defect or are of poor form but still are valuable for hard mast production. Stocking levels of desirable tree species vary greatly. This area also included a small pond that was constructed in 2017. This pond leaks and will need attention.

**Past management activities completed in this stand:** Property lines were located and painted with blue paint. Skid trails were graded, and grass covered. Understory thinning in part of the area has begun. Pond was originally constructed in 2017.

<b><i>Management Recommendations:</i></b>
Work on eradicating the grapevines in this stand
Continue maintaining access trails – BMP's to be constructed to prevent erosion
Work on eradicating the non-native invasive species in this stand as time permits

**Is a timber harvest recommended?** No

**Comments:** Area will continue to develop as time passes. Non-native invasive species will be an issue in this stand. The pond is an ongoing issue.

**Desired Future Conditions:** Allow to mature into a fully stocked hardwood stand again.

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

**Desired Stand Structure:** Uneven Aged

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

**Stand # 11** - 1.9 acres

**Dominant Species:** Red Maple, Sassafras, Yellow Poplar, Am. Beech, Black Locust, Dogwood

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

**Stand Diameter or Size Class:** Poletimber, with a few 12"+ diameter trees

**Stocking Level:** Over stocked in most areas, but many trees are dying out.

**Stand History:** No Prior Management

**Topography:** Gently sloping, ridgetop area

**Invasive plants or insects impacting this stand:** autumn olive/privet along stans edges.

**Stand Description:** This stand, adjacent to the county road, was once cleared land that was abandoned and has naturally regenerated back into forest land. This area was separated out from adjacent Stand 10 because it is not as developed. The "pioneer species like the black locust and sassafras are only beginning to die out and be replaced by red maple and poplar trees. Limited oak stocking in this area. Green briar in understory.

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

<b><i>Management Recommendations:</i></b>
Continue maintaining access trails – BMP's to be constructed to prevent erosion
Continue to mark property lines with paint, redo every 5 years or as needed to remain easily visible

**Is a timber harvest recommended?** No

**Comments:** Area will continue to develop as time passes. This area is evolving into a Maple/Beech/Poplar stand. Not a high priority area for attention at this time.

**Desired Future Conditions:** Allow to mature into a fully stocked hardwood stand.

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

**Desired Stand Structure:** Uneven Aged

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

**Stand # 12** - .387 acres                      Non-Forested Area – County Road

**Dominant Species:** NA

**Forest Type or Dominant Vegetation:**

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

**Stocking Level:** N/A

**Stand History:** N/A

**Topography:** Nearly level

**Invasive plants or insects impacting this stand:** none noted at time of inspections

**Stand Description:** This stand covers Mineral Road -County Road 8.

**Past management activities completed in this stand:** The Athens County Highway Dept. maintains this road.

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

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

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

**Desired Future Conditions:**

**Desired Forest Type or Dominant Vegetation:**

**Desired Stand Structure:**

## Management Activity Schedule

Year(s) Suggested	Mgmt. Unit	Required Task?	EQIP Practice?	Acres	Recommendations
2023, 2028 and 2033	all	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NA	Inspect & remark any portions of property lines with paint and signs necessary to help prevent illegal trespass. <b>This task must be completed before this farm is eligible for enrolment into either OFTL or CAUV property tax reduction programs.</b>
2023 - 2033	Entire Farm	<input type="checkbox"/>	<input type="checkbox"/>	NA	Maintain roads and access trails. Establish BMP's on trails where necessary to prevent erosion. Work on reducing the Japanese Stiltgrass established in the trails and along field edges.
2023 -2028	7, 9 & 10	<input type="checkbox"/>	<input type="checkbox"/>	10 + ac	Work on the eradication of the scattered various non-native invasive species identified in these stands – Barberry, Autumn Olive along field edge. Cut grapevines from all “crop” trees. Work on Japanese Stiltgrass.
2028 -2033	1, 3, 4 & 5	<input type="checkbox"/>	<input type="checkbox"/>	10 + ac	Work on the eradication of the scattered various non-native invasive species identified in these stands – Barberry, Autumn Olive along field edge. Cut grapevines from all “crop” trees. Work on Japanese Stiltgrass in open areas.
2023 -2033	7	<input type="checkbox"/>	<input type="checkbox"/>	12 ac	Mow this area to maintain “low” cover for wildlife habitat diversity. Possibly install nesting structures or brush piles along field edges. Possible pollinator plot establishment near ponds.
2028 & 2033	Whole Property	<input type="checkbox"/>	<input type="checkbox"/>		Next Site Visit – Woodland reviews are recommended at least once every five years, and no more than ten years, based upon the date of the last actual woodland evaluation conducted by your forester

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

## ***Woodland Resource Descriptions***

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

**Soil Type(s):** DtE, DtF, DuF, GsC, WdC, WeB, WhC, WhD, WhE

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

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

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

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

**Site Class: (using Woodland Productivity):** A wide range of woodland productivity  
Northern Red Oak

**Timber Information** - a general description of the timber characteristics of quality and potential: Most of the hardwood forested stands on this ownership were harvested around 2012, by the previous landowners. Overall, the harvest was a heavy cut, intended to generate revenue for a previous landowner. This was completed before selling the farm in 2016.

It appears this was a logger “select” cut with all the easily accessible commercial sized trees being cut. Some areas were heavily logged and will take 50+ years to produce sawlog sized trees (Stands 1, 7 & 10). Stands 4 & 11 are marginally stocked with desirable trees and spots of saplings only present. The remainder of this ownership (Stands 3, 5, 9) are still adequately stocked with mainly pole/small sawlog sized trees of commercially desirable species. There is a well-developed trail system in the forested areas.

Timber stand improvement (TSI) management practices such as non-native invasive control, cull tree & undesirable hardwood species control, and crop tree release will certainly enhance the quality and value of your timber resources over time and are important tasks to implement in order to maximize the timber potential in your woodland.

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

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

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

This ownership is a mosaic of forest lands, open lands and riparian areas. The grassed powerline right-of-ways provide bugging areas for young turkeys and flight corridors for many species of non-game birds. Stand 6 is a large open ridgetop field area. These areas could be

enhanced by establishing additional food plot(s), rotational mowing for grassed areas and adding some nesting structures. The access trails also provide corridors for wildlife movement.

**Best Management Practices** – maintaining the integrity and productivity of woodland sites: As bad as the last harvest was (in regard to harvesting intensity), the logger did lay out skidding trails in good locations overall, but several are too steep and straight down slopes. Note -The previous owner had reworked many of the trails and had maintained them. The trails are still in good shape and erosion issues are minimal.

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

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

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

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

All the old skid roads that are being maintained as access trails are in good shape and need little attention, other than Japanese Stiltgrass is becoming established.

**Water** - a general description of the water resources on the property: Soil and water conservation practices can be applied to this property. Perennial streams should always be buffered with trees. Livestock should be kept out of streams. Water control structures should be used in areas where access trails and roadways are present. The water and soil resources on your property should be protected and enhanced. Using the information in this plan and information available through your local Soil and Water Conservation District you can implement sound soil and water conservation practices on your property.

There was an intermittent stream identified on this farm. Several vernal pools and wet weather springs were noted in the woodland areas. A pond is in Stand 10, in the hollow near the house. This pond was constructed in 2017 but leaks. Plans are in place to re-work this pond.

All of these water sources are an important asset for this farm, providing wildlife benefit and recreational opportunities.

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

There are: no identified wetlands on this farm, only the 2 intermittent streams, and the farm ponds that are located on this ownership, indicated in the National Wetland Inventory GIS Database - See Map.

**Archeological/Historical Resources (Special Sites)** – a general consideration and description of such resources:

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

No known significant / historical / ecological sites are listed in the State Registry for this tract.

**Forest Health** – a general description of the health of the woodland: Most of the forest areas are in good condition, considering the recent harvesting activity. The areas lightly or not harvested at all, are of course the most stable in terms of healthy undamaged trees. EAB is having a limited impact on the forested areas of this tract because the larger Ash trees were removed. Non-native invasive plants, like Ailanthus, Privet, Autumn Olive, Winged Burning Bush, Wisteria, Japanese Stiltgrass & Bush Honeysuckle in particular, are becoming established in specific areas.

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

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

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

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

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

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

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

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

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

Threatened and endangered species have certain habitat requirements. Habitat requirements for threatened or endangered species may or may not be found on this forest land.

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

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

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

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

**Integrated Pest Management** – The maintenance of destructive agents, including insects, at tolerable levels by planned use of a variety of preventative, suppressive or regulatory tactics and strategies that are ecologically and economically efficient and socially acceptable.

In SE Ohio numerous insects can affect forest health; Gypsy Moth, Emerald Ash Borer, White Pine Adelgid, Hemlock Woolly Adelgid, Bronze Oak Borer.....

Future planned TSI work and firewood harvests will include the removal of dead Ash trees to utilize these dead trees.

Invasive plants are another destructive agent to the health of your woods. Locally, Autumn Olive, Bush Honeysuckle, Barberry, Winged Burning Bush, Japanese Honeysuckle, Privet, Japanese Stiltgrass, and Ailanthus are some of the non-native species.

## How To Maintain Forest Health

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

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

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

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

Maintaining the trails will improve access and the opportunities for use of the area. A walk in the forest provides a time of learning but it can also be a time to relax. The woodlands can be a quiet place of solitude after a busy day at work, or anytime for that matter. Hunting and just observing various species of wildlife are a major reason for the ownership of this tract. This is their home and the Kemerer's use this land for hiking, bird watching or just to relax in the presence of the serene natural settings.

**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).

Prescribed burns will not be part of the management of this predominately hardwood forest.

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

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

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

Forest stewardship management addresses these and other various aesthetic tastes and may weigh in visual goals of the neighbors. When you are weighing aesthetic goals, consider as

a "group" 1) visual aesthetics, 2) the aesthetics of a dynamic functioning forest ecosystem, and 3) the particular wildlife species you hope to encourage at your property.

This farm is adjacent to County Road 8 so viewscape integrity should be maintained.

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

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

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

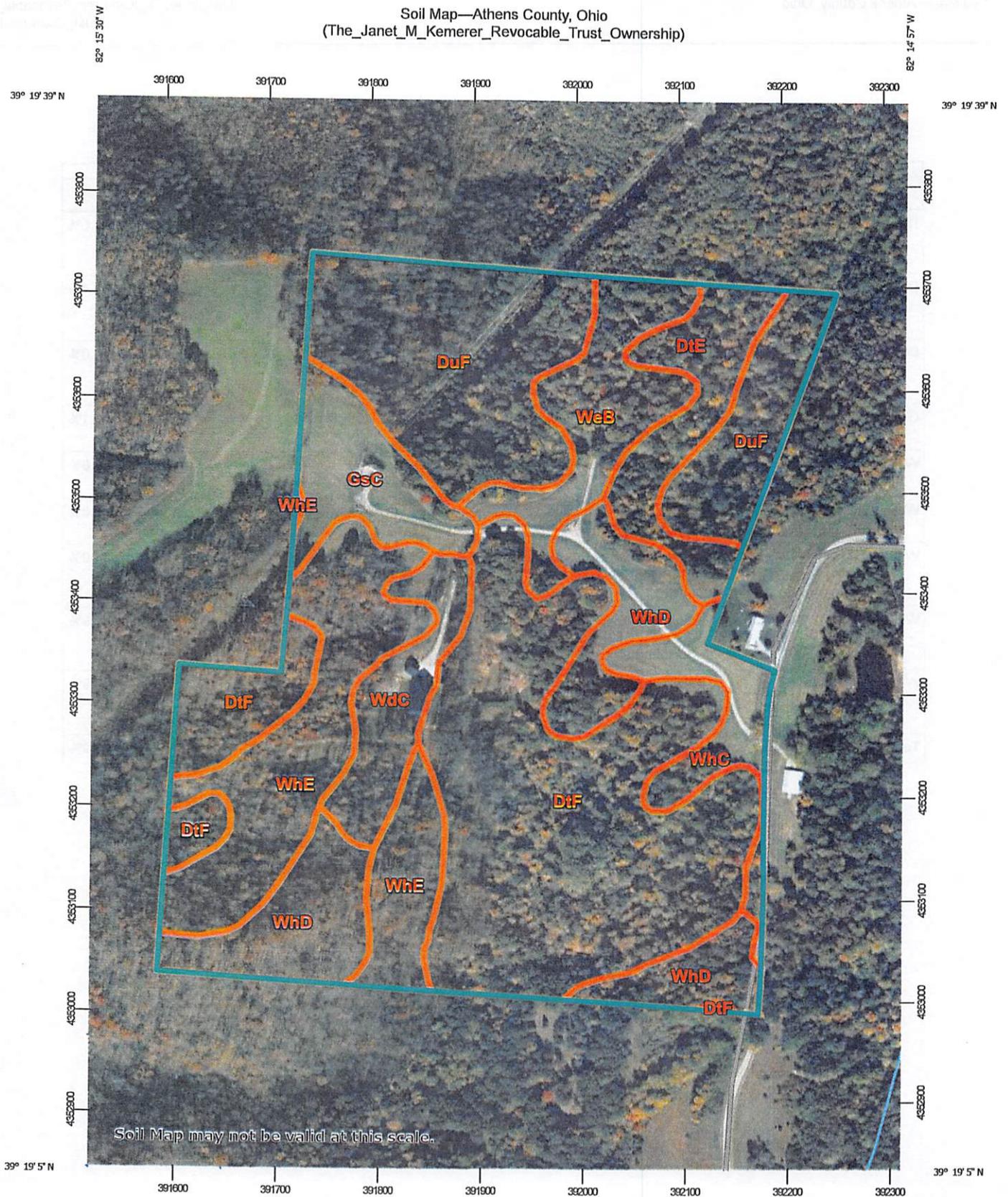
## Addendums

- Soil Map and Map Unit Description & Soil Report
- Forest Productivity (Site Index) Northern Red Oak
- Forest Productivity Report

**Landowner Plan packet also contains:**

- Autumn Olive Fact Sheet
- Barberry Fact Sheet
- Bush Honeysuckle Fact Sheet
- How to mark boundaries handout
- How to Cut Grapevines
- Forestry Terms

Soil Map—Athens County, Ohio  
(The\_Janet\_M\_Kemerer\_Revocable\_Trust\_Ownership)



Soil Map may not be valid at this scale.

Map Scale: 1:5,120 if printed on A portrait (8.5" x 11") sheet.

0 50 100 200 300 Meters

0 200 400 800 1200 Feet

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



Natural Resources  
Conservation Service

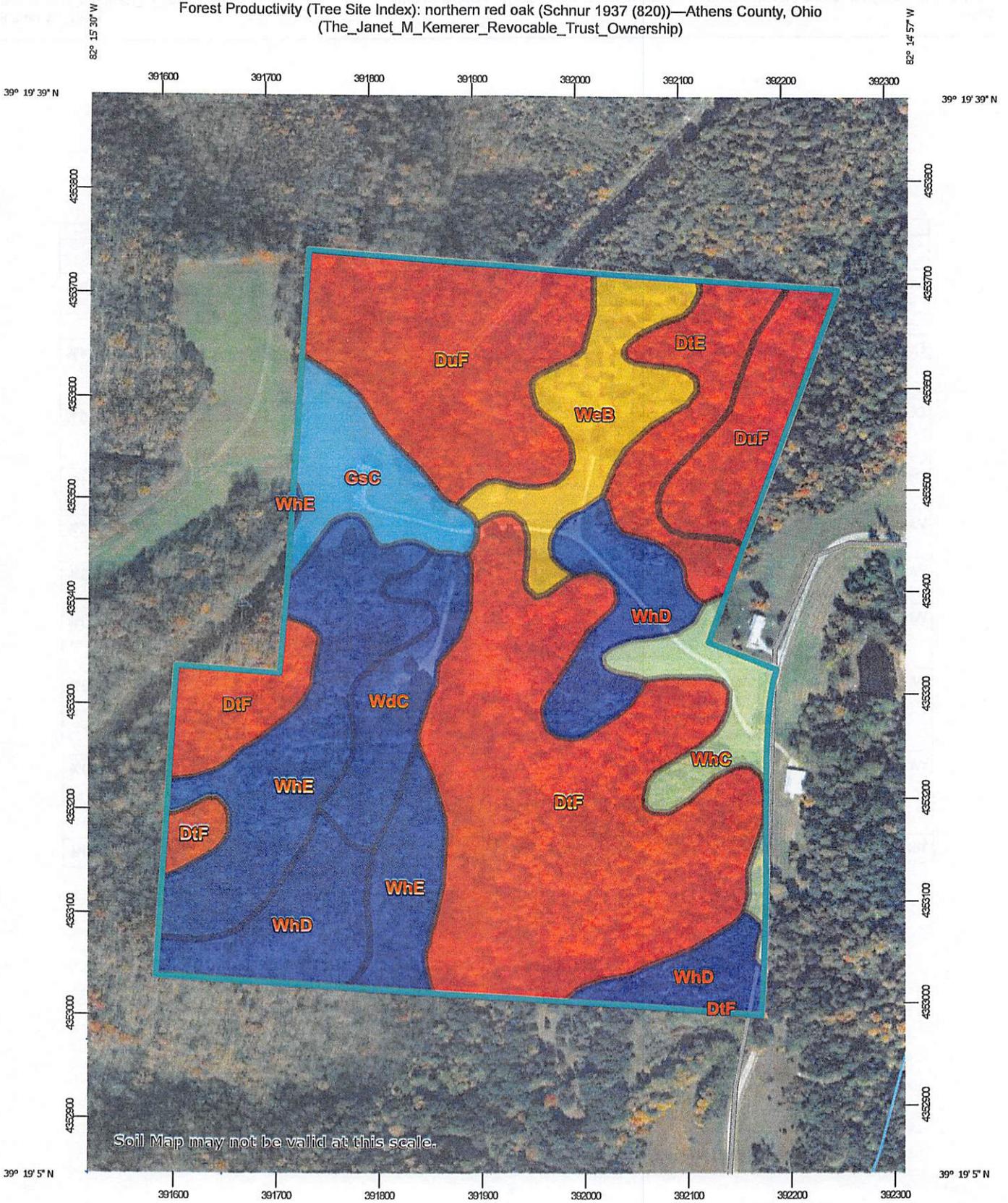
Web Soil Survey  
National Cooperative Soil Survey

7/4/2023  
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## Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
DtE	Dekalb-Westmoreland complex, 25 to 40 percent slopes	5.0	5.6%
DtF	Dekalb-Westmoreland complex, 40 to 70 percent slopes	27.5	30.4%
DuF	Dekalb-Westmoreland complex, benched, 40 to 70 percent slopes	16.3	18.0%
GsC	Guernsey silt loam, 8 to 15 percent slopes	4.6	5.1%
WdC	Wellston silt loam, 8 to 15 percent slopes	4.1	4.6%
WeB	Westmore silt loam, 3 to 8 percent slopes	6.0	6.6%
WhC	Westmoreland-Guernsey silt loams, 8 to 15 percent slopes	3.7	4.0%
WhD	Westmoreland-Guernsey silt loams, 15 to 25 percent slopes	10.7	11.9%
WhE	Westmoreland-Guernsey silt loams, 25 to 40 percent slopes	12.6	13.9%
<b>Totals for Area of Interest</b>		<b>90.5</b>	<b>100.0%</b>

Forest Productivity (Tree Site Index): northern red oak (Schnur 1937 (820))—Athens County, Ohio  
 (The\_Janet\_M\_Kemerer\_Revocable\_Trust\_Ownership)



Map Scale: 1:5,120 if printed on A portrait (8.5" x 11") sheet.

0 50 100 200 300 Meters

0 200 400 800 1200 Feet

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



Natural Resources  
 Conservation Service

Web Soil Survey  
 National Cooperative Soil Survey

## 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
DiE	Dekalb-Westmoreland complex, 25 to 40 percent slopes	62	5.0	5.6%
DiF	Dekalb-Westmoreland complex, 40 to 70 percent slopes	62	27.5	30.4%
DuF	Dekalb-Westmoreland complex, benched, 40 to 70 percent slopes	62	16.3	18.0%
GsC	Guemsey silt loam, 8 to 15 percent slopes	78	4.6	5.1%
WdC	Wellston silt loam, 8 to 15 percent slopes	81	4.1	4.6%
WeB	Westmore silt loam, 3 to 8 percent slopes	68	6.0	6.6%
WhC	Westmoreland-Guemsey silt loams, 8 to 15 percent slopes	75	3.7	4.0%
WhD	Westmoreland-Guemsey silt loams, 15 to 25 percent slopes	81	10.7	11.9%
WhE	Westmoreland-Guemsey silt loams, 25 to 40 percent slopes	81	12.6	13.9%
<b>Totals for Area of Interest</b>			<b>90.5</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*

## Forestland Productivity

This table is designed to assist forestland owners or managers in planning the use of soils for wood crops. It provides the potential productivity of the soils for wood crops.

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

The *Base Age* is the age of trees in years on which the site index is based. "TA" indicates total age. "BH" indicates breast height age. "N/A" indicates that base age is not applicable.

The *Site Index Curve Number* is listed in the National Register of Site Index Curves. It identifies the site index curve used to determine the site index.

The *Volume Growth Rate* is the maximum wood volume annual growth rate likely to be produced by the tree species. This number, expressed as cubic feet per acre per year, is calculated at the age of culmination of the mean annual increment (CMAI). It indicates the maximum volume of wood fiber produced per year in a fully stocked, even-aged, unmanaged stand.

**Reference:**

United States Department of Agriculture, Natural Resources Conservation Service, National Forestry Manual.

## Report—Forestland Productivity

Forestland Productivity—Athens County, Ohio				
Map unit symbol and soil name	Potential productivity			Trees to manage
	Common trees	Site Index	Volume of wood fiber	
			Cu ft/ac/yr	
DtE—DeKalb-Westmoreland complex, 25 to 40 percent slopes				
DeKalb	Black cherry	82	—	Black oak, Eastern white pine, Red pine, Tuliptree, Virginia pine, White ash
	Northern red oak	62	29.00	
	Tuliptree	75	—	
Westmoreland	Eastern white pine	75	143.00	Black cherry, Eastern white pine, Northern red oak, Red pine, Tuliptree, Virginia pine, White ash
	Northern red oak	81	57.00	
	Tuliptree	90	86.00	

Forestland Productivity—Athens County, Ohio				
Map unit symbol and soil name	Potential productivity			Trees to manage
	Common trees	Site Index	Volume of wood fiber	
			Cu ft/ac/yr	
DtF—DeKalb-Westmoreland complex, 40 to 70 percent slopes				
Dekalb	Northern red oak	62	29.00	Black oak, Eastern white pine, Red pine, Tuliptree, Virginia pine, White ash
Westmoreland	Eastern white pine	75	143.00	Black cherry, Eastern white pine, Northern red oak, Red pine, Tuliptree, White ash, White oak
	Northern red oak	81	57.00	
	Tuliptree	90	86.00	
DuF—DeKalb-Westmoreland complex, benched, 40 to 70 percent slopes				
Dekalb	Northern red oak	62	29.00	Black oak, Eastern white pine, Red pine, Tuliptree, Virginia pine, White ash
Westmoreland	Eastern white pine	75	143.00	Black cherry, Eastern white pine, Northern red oak, Red pine, Tuliptree, White ash, White oak
	Northern red oak	81	57.00	
	Tuliptree	90	86.00	
GsC—Guernsey silt loam, 8 to 15 percent slopes				
Guernsey	Northern red oak	78	58.00	Northern red oak, Tuliptree
	Tuliptree	95	99.00	
WdC—Wellston silt loam, 8 to 15 percent slopes				
Wellston	Northern red oak	81	57.00	Black walnut, Eastern white pine, Northern red oak, Tuliptree, White ash, White oak
	Tuliptree	90	86.00	
	Virginia pine	70	114.00	
WeB—Westmore silt loam, 3 to 8 percent slopes				
Westmore	Northern red oak	68	57.00	Black walnut, Northern red oak, Tuliptree, Virginia pine, White ash
	Tuliptree	91	86.00	

Forestland Productivity—Athens County, Ohio				
Map unit symbol and soil name	Potential productivity			Trees to manage
	Common trees	Site Index	Volume of wood fiber	
			Cu ft/ac/yr	
WhC—Westmoreland-Guernsey silt loams, 8 to 15 percent slopes				
Westmoreland	Eastern white pine	70	129.00	Black walnut, Eastern white pine, Northern red oak, Tuliptree, White ash, White oak
	Northern red oak	75	57.00	
	Tuliptree	85	86.00	
Guernsey	Black cherry	—	—	Eastern white pine, Red pine, Tuliptree, White ash, White oak
	Black walnut	—	—	
	Northern red oak	78	57.00	
	Sugar maple	—	—	
	Tuliptree	95	100.00	
	White ash	—	—	
	White oak	—	—	
WhD—Westmoreland-Guernsey silt loams, 15 to 25 percent slopes				
Westmoreland	Eastern white pine	75	143.00	Eastern white pine, Northern red oak, Red pine, Tuliptree, White ash, White oak
	Northern red oak	81	57.00	
	Tuliptree	90	86.00	
Guernsey	Black cherry	—	—	Eastern white pine, Northern red oak, Red pine, Tuliptree, White ash, White oak
	Black walnut	—	—	
	Northern red oak	78	57.00	
	Sugar maple	—	—	
	Tuliptree	95	100.00	
	White ash	—	—	
	White oak	—	—	

Forestland Productivity—Athens County, Ohio				
Map unit symbol and soil name	Potential productivity			Trees to manage
	Common trees	Site Index	Volume of wood fiber	
			<i>Cu ft/ac/yr</i>	
WhE—Westmoreland-Guemsey silt loams, 25 to 40 percent slopes				
Westmoreland	Eastern white pine	75	143.00	Eastern white pine, Northern red oak, Red pine, Tuliptree, White ash, White oak
	Northern red oak	81	57.00	
	Tuliptree	90	86.00	
Guemsey	Black cherry	—	—	Eastern white pine, Northern red oak, Red pine, Tuliptree, White ash, White oak
	Black walnut	—	—	
	Northern red oak	78	57.00	
	Sugar maple	—	—	
	Tuliptree	95	100.00	
	White ash	—	—	
White oak	—	—		

**Data Source Information**

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