Athens Co. Auditor

Woodland Stewardship Management Plan

Owner's Information:

Case Number: _____

Owner: Sunday Creek Acres LLC

Signed: _____
David Funk_ Owner

Date: October___, 2017

Preparer's Information:

Prepared by: Dean A. Berry

Signature: _____

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

740-541-4647 mobile
fatlabtreefarm@gmail.com

Date: 10/05/2017
Field Inspection Date

This plan is valid for the period beginning October 15th, 2017 and ending October 14th, 2027.

Plan Status:Revised
Original 10 yr Stewardship Plan written by ODNR DOF Forester on 11/21/2006

NRCS Representative Signature: Date:

Woodland Stewardship Management Plan

Owner	Sunday Creek Acres, LLC (David Funk)		
Address	PO Box 186		
	Athens, Ohio 45701		
Phone		Case Number	
Cell	740-591-4738	Email Address	dfunk@capstonecompany.com
County	Athens	Township/Village/City:	Dover Twp. Sections 15 & 16
Parcel(s):	G010010070000, G010010070100, G010010070200		
Location:	Tract location is 14848 ST Rt 13 Millfield OH 45761		

Woodland Stewardship Acreage: 179.0

Total Property Acres 182.79

Non-woodland Stewardship Acreage*: 3.8

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

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

☐ Ohio Forest Tax Law

☒ American Tree Farm Program

☒ Environmental Quality Incentives Program (EQIP

☒ CAUV Property Tax Reduction

Property coordinates (report in WGS 84, degrees min sec.)

Longitude: 39 25' 0.246" N Latitude: -82 7' 1.357" W

Landowner Management Objectives

1. Manage the property for all attributes and opportunities that exist in a forest ecosystem of interest to the owner including recreation, wildlife management, soil and water management, forest protection, timber products management, and other compatible conservation uses.

2. Improve the productivity of this farm for future generations. This involves planting trees in the fallow fields and working to eradicate non-native invasive species of trees & shrubs. Timber Stand Improvement work will be done to enhance forest stand quality.

General Woodland Description

Athens County is located in the unglaciated hill country of southeastern Ohio. Slope and erosion hazard is the major land use limitations. Seasonal wetness, droughtiness, flood hazard, and the moderately slow to very slow permeability of some soils also limit land use.

Athens County is in the central hardwood forest region. Most of the woodland in Athens County is in areas of steep and very steep terrain. This terrain is well suited to trees.

Mr. Funk purchased this farm in Oct. of 2005, and it is held in the entity of *Sunday Creek Acres LLC.* The previous owner did no management activities to improve the forested land on this tract. In 2007 the open fields were planted to a variety of trees with moderate success. At the time of inspection, the residential structure was occupied.

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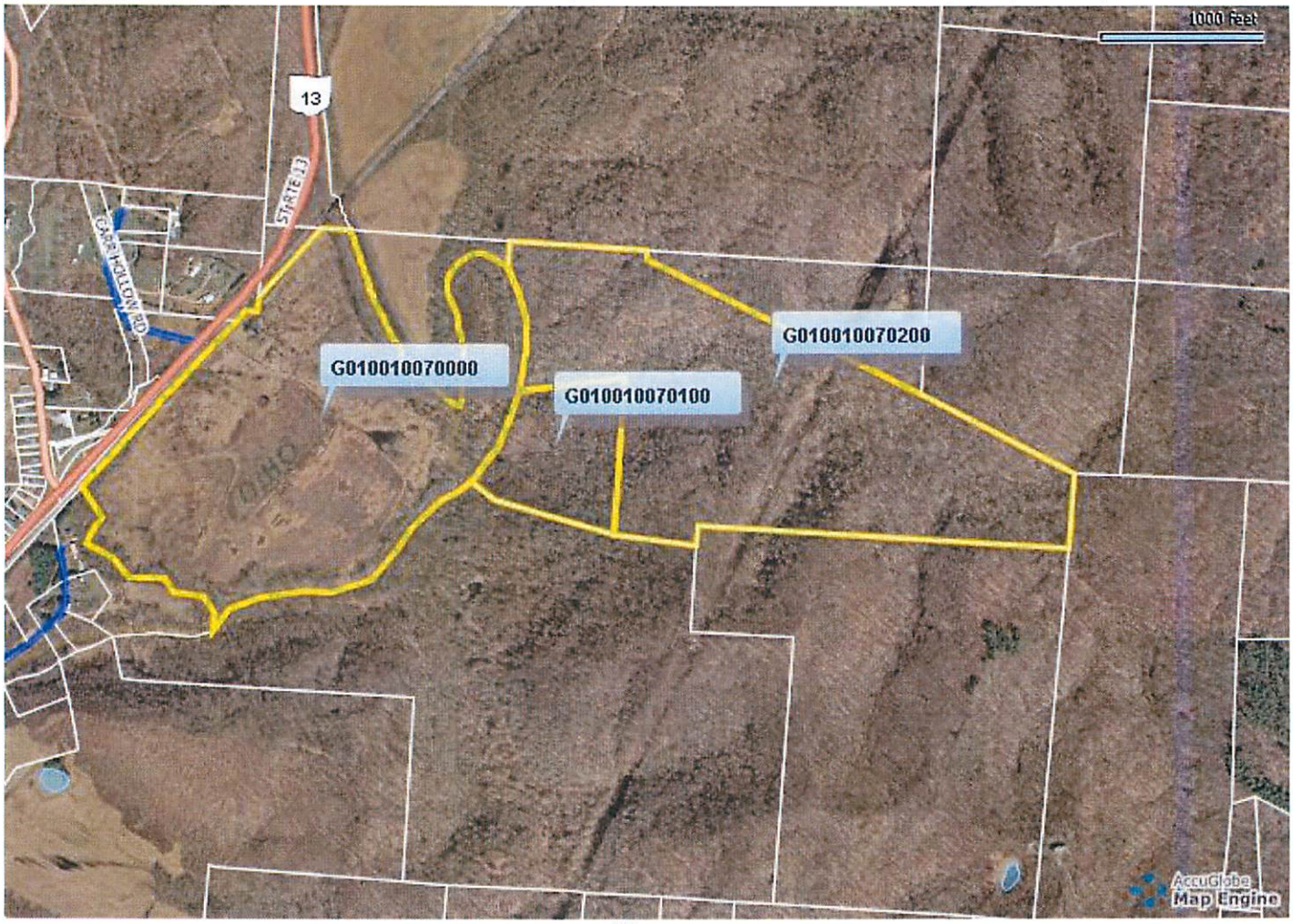
Athens County GIS



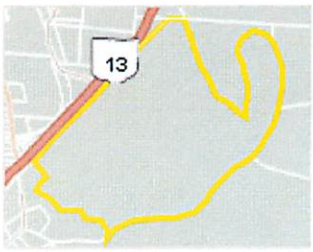
Notes

Sunday Creek Acres LLC Tract
(David Funk)

Data For Parcel G010010070000

Base Data

Parcel:	G010010070000
Owner:	SUNDAY CREEK ACRES LLC
Address:	14848 S R 13



[+] Map this property.

Mailing Address

Mailing Name:	SUNDAY CREEK ACRES, LLC
Address:	PO BOX 186
City State Zip:	ATHENS OH 45701

Geographic

City:	UNINCORPORATED
Township:	DOVER TOWNSHIP
School District:	ATHENS CITY SCHOOL DISTRICT

Legal

Neighborhood:	00023000	**Legal Acres:**	81.22
Legal Description:	SEC 15-21 FRA 11 81.22AC	**Land Use:**	(122) A - TIMBER NO 10% RLB
		Property Class:	AGRICULTURAL
Map Number:	0-0-0-0	**Range Township Section:**	0-0-0

Valuation

	Appraised	**Assessed (35%)**
Land Value:	$116,560.00	$40,800.00
Building Value:	$32,250.00	$11,290.00
Total Value:	$148,810.00	$52,090.00
CAUV Value:	$173,410.00	
Taxable Value:	$52,090.00	

Tax Credits

Owner Occupancy Credit:	NO
Homestead Reduction:	NO

Notes

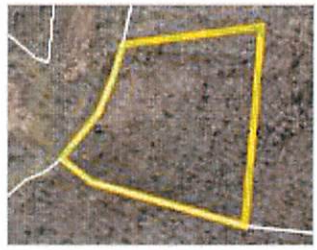
Notes:	

GIS parcel shapefile last updated 6/6/2017 11:53:26 AM.
CAMA database last updated 6/9/2017 3:19:01 PM.

Data For Parcel G010010070100

Base Data

Parcel:	G010010070100
Owner:	SUNDAY CREEK ACRES LLC
Address:	0 S R 13



[+] Map this property.

Mailing Address

Mailing Name:	SUNDAY CREEK ACRES, LLC
Address:	PO BOX 186
City State Zip:	ATHENS OH 45701

Geographic

City:	UNINCORPORATED
Township:	DOVER TOWNSHIP
School District:	ATHENS CITY SCHOOL DISTRICT

Legal

Neighborhood:	00023000	**Legal Acres:**	13.85
Legal Description:	SEC 15 FRA 11 SUR 13.85AC	**Land Use:**	(122) A - TIMBER NO 10% RLB
		Property Class:	AGRICULTURAL
Map Number:	0-0-0-0	**Range Township Section:**	0-0-0

Valuation

	Appraised	Assessed (35%)
Land Value:	$12,470.00	$4,360.00
Building Value:	$0.00	$0.00
Total Value:	$12,470.00	$4,360.00
CAUV Value:	$6,380.00	
Taxable Value:	$2,230.00	

Tax Credits

Owner Occupancy Credit:	NO
Homestead Reduction:	NO

Notes

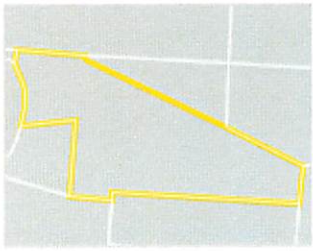
Notes:	

GIS parcel shapefile last updated 6/6/2017 11:53:26 AM.
CAMA database last updated 6/9/2017 3:19:01 PM.

Data For Parcel G010010070200

Base Data

Parcel:	G010010070200
Owner:	SUNDAY CREEK ACRES LLC
Address:	0 S R 13



[+] Map this property.

Mailing Address

Mailing Name:	SUNDAY CREEK ACRES, LLC
Address:	PO BOX 186
City State Zip:	ATHENS OH 45701

Geographic

City:	UNINCORPORATED
Township:	DOVER TOWNSHIP
School District:	ATHENS CITY SCHOOL DISTRICT

Legal

Neighborhood:	00023000	**Legal Acres:**	87.72
Legal Description:	SEC 15 FRA 6-11 87.72AC	**Land Use:**	(122) A - TIMBER NO 10% RLB
		Property Class:	AGRICULTURAL
Map Number:	0-0-0-0	**Range Township Section:**	0-0-0

Valuation

	Appraised	**Assessed (35%)**
Land Value:	$78,950.00	$27,630.00
Building Value:	$0.00	$0.00
Total Value:	$78,950.00	$27,630.00
CAUV Value:	$42,880.00	
Taxable Value:	$15,010.00	

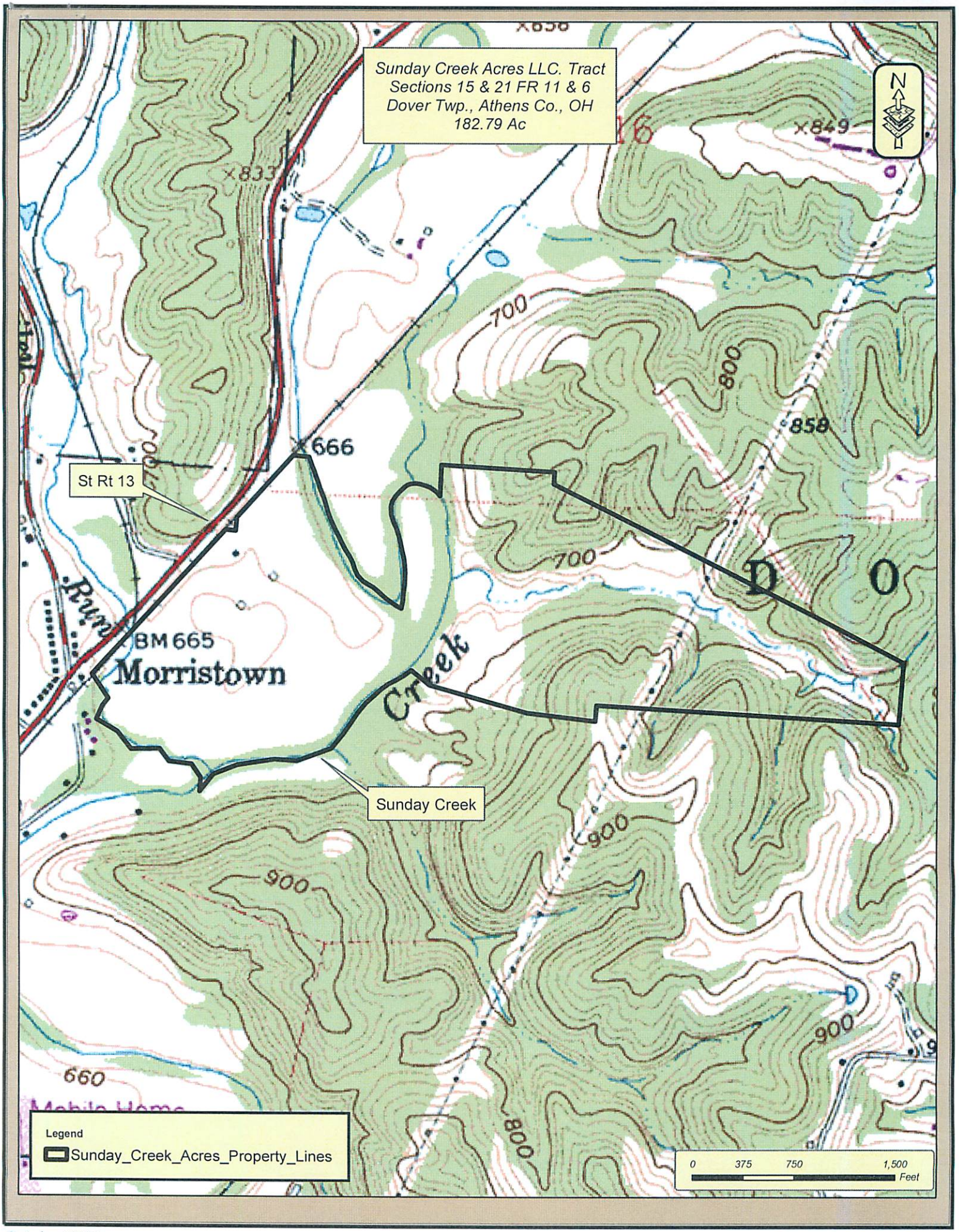
Tax Credits

Owner Occupancy Credit:	NO
Homestead Reduction:	NO

Notes

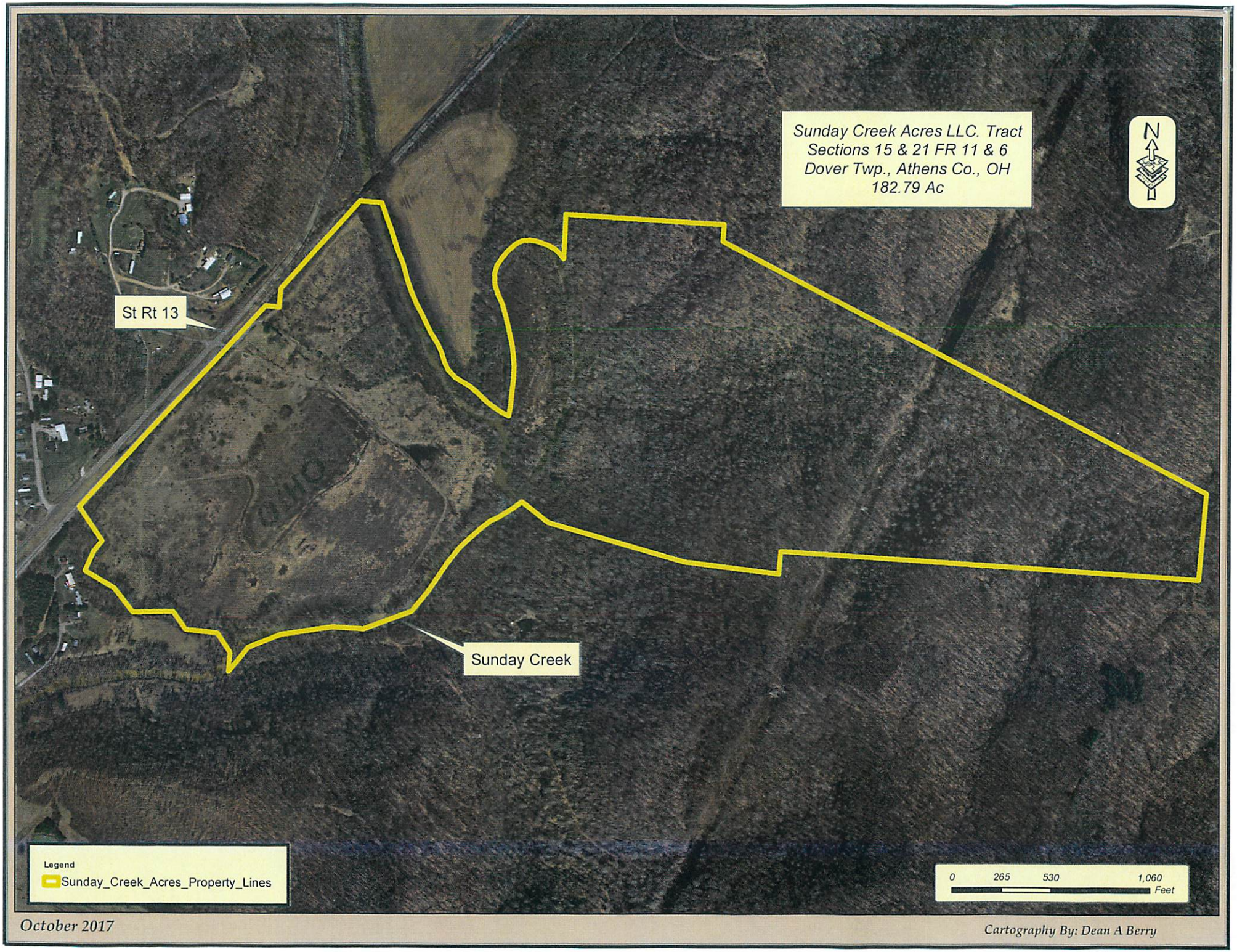
Notes:	

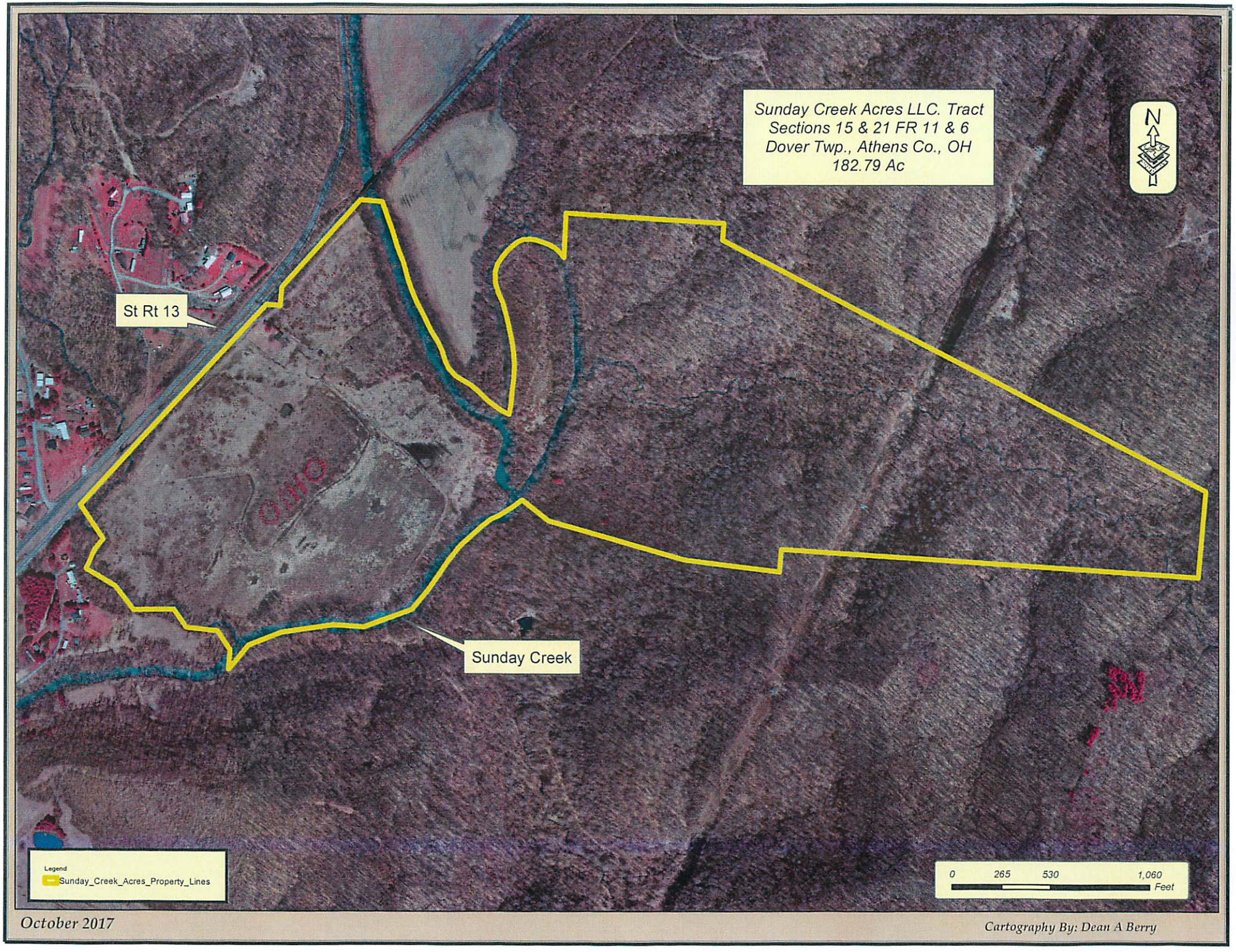
GIS parcel shapefile last updated 6/6/2017 11:53:26 AM.
CAMA database last updated 6/9/2017 3:19:01 PM.



October 2017

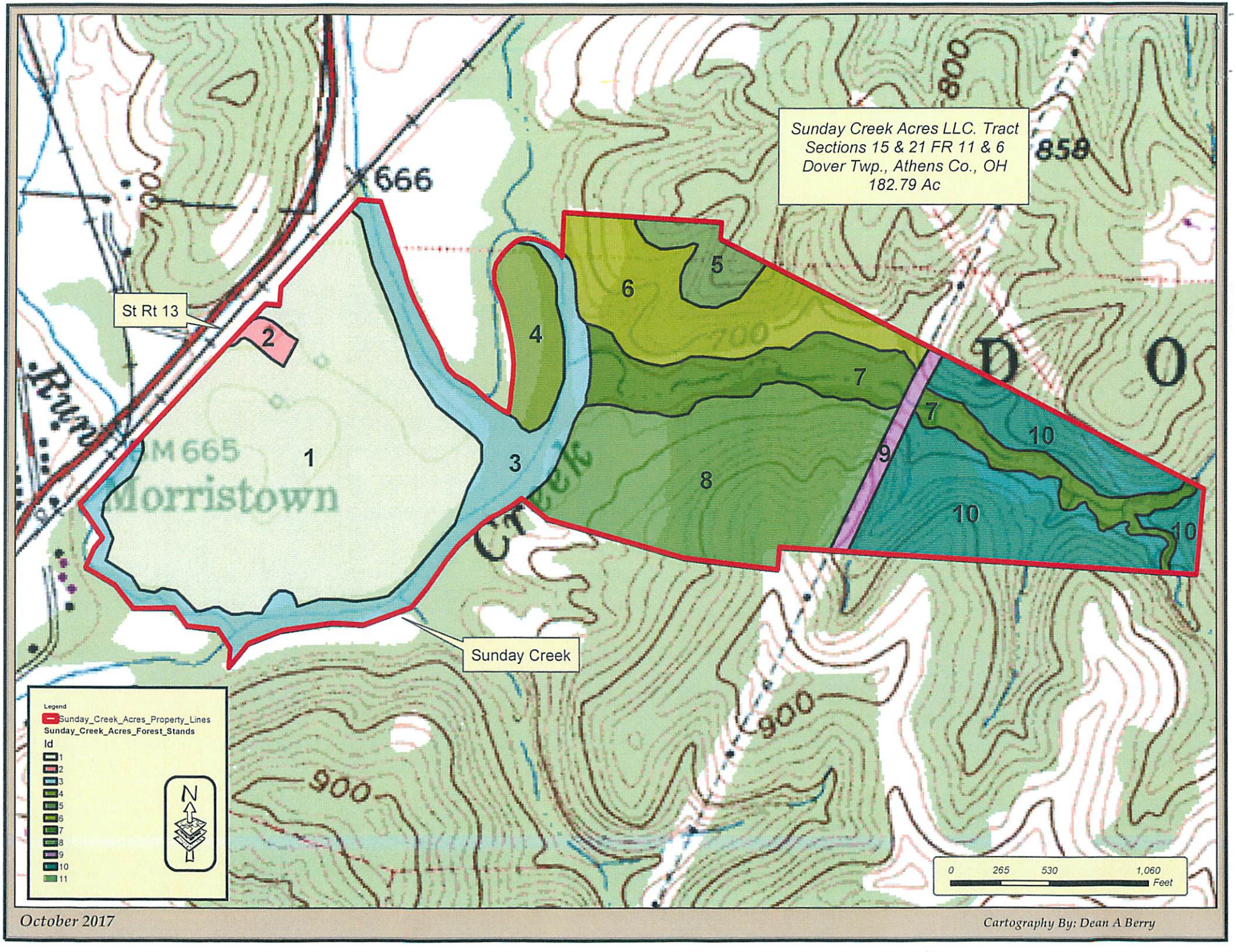
Cartography By: Dean A Berry


Sunday Creek Acres LLC. Tract
Sections 15 & 21 FR 11 & 6
Dover Twp., Athens Co., OH
182.79 Ac
N
St Rt 13
Sunday Creek
Legend
Sunday_Creek_Acres_Property_Lines
0
265
530
1,060
Feet
October 2017
Cartography By: Dean A Berry



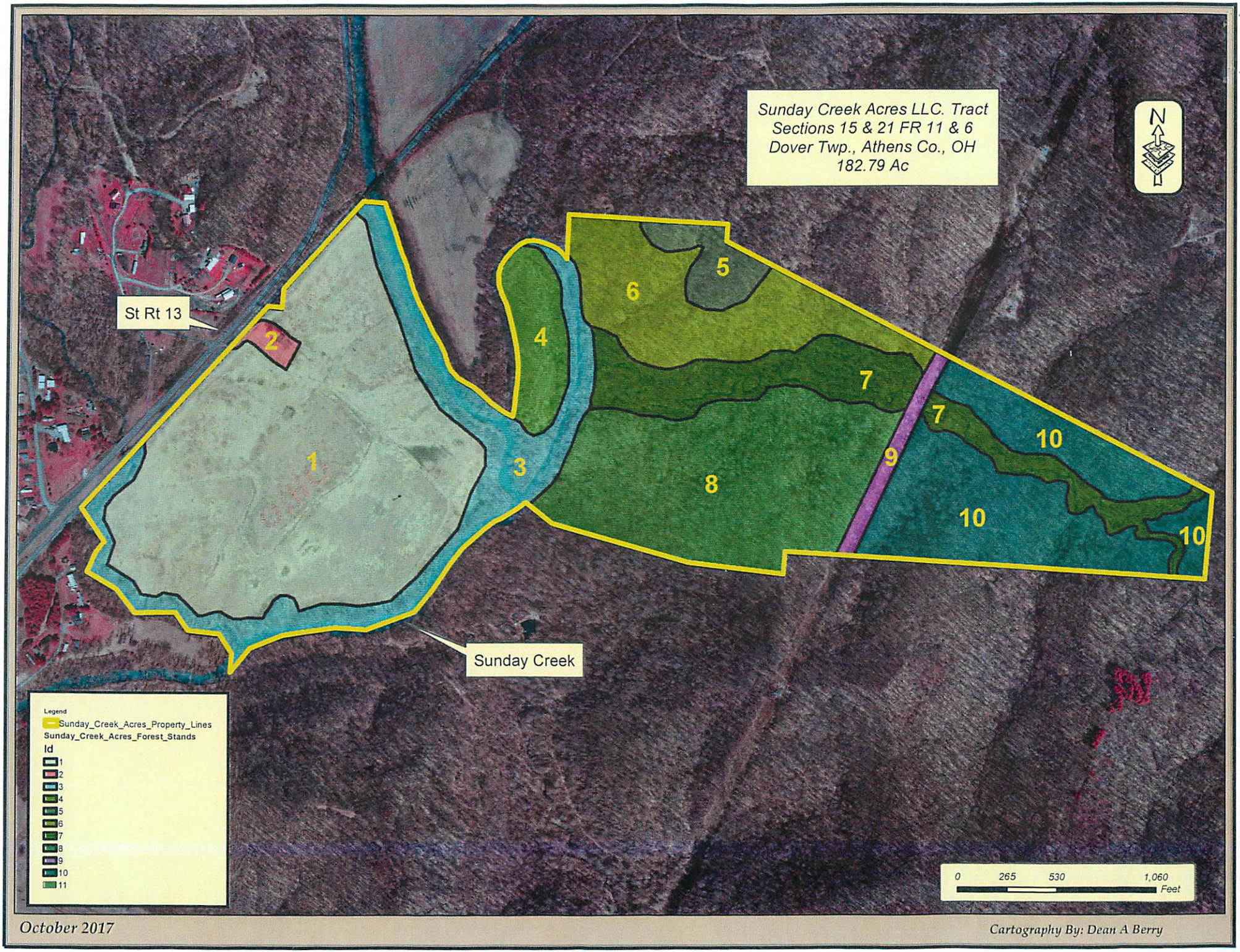
October 2017

Cartography By: Dean A Berry



October 2017

Cartography By: Dean A Berry



October 2017

Cartography By: Dean A Berry

Woodland Stand Description and Management Recommendations

Stand #1 - **56.3** acres Semi-Forested Area – plantation areas & fallow field

Dominant Species: Planted -Black Walnut, Swamp White Oak, Red Oak, White Pine, Spruce **Native** - grasses and broadleaf plants, scattered clumps of saplings – Black Willow, Sycamore, Silver Maple, Box Elder & a few Black Walnut

Forest Type or Dominant Vegetation: As Listed in Dominant Species

Stand Diameter or Size Class: Sapling

Stocking Level: Under stocked in most areas

Stand History: Other

Topography: Nearly level

Invasive plants or insects impacting this stand: Autumn Olive scattered in field and along edges.

Stand Description: This open area was originally planted to trees in 2007 & 2008 (see below). Poor survival rates in all portions of this area. The heavy grasses, still present in this area, are inhibiting tree growth. Autumn Olive is becoming established in the field. An oil well and several old out buildings (all in disrepair) are found in this area. Interior fencing present. Identified wetland areas in this field (see Wetlands Map).

Past management activities completed in this stand:

2007 - CRP planting of 26.8 ac along Sunday Creek (ST 4 included)
2008 – EQIP planting of remainder of field with Black Walnut, Swamp White Oak, White Pine and Spruce.
2008 – Re-planted part of CRP area 2 -2.5 ac, because of poor survival.

Management Recommendations:
Eradicate Autumn Olive from field before re-planting any of the area
Re-plant open areas to appropriate desirable tree species – EQIP / CRP project if eligible

Comments: The Walnut & Swamp White Oak that has survived appears to be growing well. Very few conifers were evident in this area except for **"OHIO"**. Work on eradicating the clumps of Autumn Olive or it will infest the entire area. If you apply for EQIP cost share (must be 2018 or after), then you must be willing to follow planting recommendations from ODNR DOF.

Desired Future Conditions: Develop this semi-forested field into a fully stocked plantation by planting trees additional trees.

Desired Forest Type or Dominant Vegetation: Bottomland Hardwoods - better drained site
Desired Stand Structure: Even Aged

Planting recommendations developed by ODNR DOF Service Forestry

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

September prior to planting: Spray glyphosate herbicide in a strip 3-4 feet wide where each row of trees will be planted in the rows that were mowed in the summer. (Mow these strips in your field as low as possible, and then spray) **I would recommend you also apply a treatment of OUST or a similar herbicide for pre-emergent control.**

Autumn prior to planting: order recommended number of seedlings of each recommended species. **(Suggest –more Black Walnut, Swamp White Oak, Pin Oak and Sycamore)**

March: plant recommended seedlings at recommended spacing. **(I recommend a 8' X 8' spacing– 680 trees/acre or a maximum of 8' X 10' spacing _– the 10' being the width between rows 544 trees/ac.**

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

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

Woodland Stand Description and Management Recommendations

Stand # 2 - **1.0** acres Non-Forested Area_ Residential Area

Dominant Species: NA

Forest Type or Dominant Vegetation: N/A

Stand Diameter or Size Class: N/A

Stocking Level: N/A

Stand History: N/A

Topography: Gently sloping

Invasive plants or insects impacting this stand: None noted at time of field inspection

Stand Description: This stand includes the residential area (rental house). Associated driveway is included in this stand. The residential area is semi-wooded with a variety of trees & shrubs along yard edge.

Past management activities completed in this stand: mowing and general maintenance.

Management Recommendations:
Annually inspect for invasive species & eradicate any found

Is a timber harvest recommended? N/A

Comments: The house is located in the major field.

Desired Future Conditions: NA

Desired Forest Type or Dominant Vegetation:

Desired Stand Structure:

Woodland Stand Description and Management Recommendations

Stand # 3 - **21.4** acres

Dominant Species: Box Elder, Sycamore, Silver Maple, Black Walnut, Red Maple, American Elm, Cottonwood

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

Stand Diameter or Size Class: All size classes with the larger trees scattered along the stream bank.

Stocking Level: Fully stocked in most areas, but not with desirable species

Stand History: Unknown

Topography: Nearly level

Invasive plants or insects impacting this stand: EAB, Autumn Olive, scattered grapevines some Burning Bush, Barberry, Privet identified

Stand Description: This is a catch-all area – narrow strips of land that included Sunday Creek and its stream banks. Portions of Sunday Creek form the property boundaries. Trees species present are mainly bottomland hardwood species, because this is a flood prone area. Some quality Walnut trees can be found in this area. **Parts of his area is identified as a Freshwater Forested/Shrub Wetland in the National Wetlands Inventory GIS DataBase**

Past management activities completed in this stand: property lines located and marked with signage.

Management Recommendations:
Cut grapevines from all crop trees in this area
Work on eradicating the Autumn Olive from areas adjacent to Stand 1

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

Comments:

This area is considered a non-harvest area in this plan to preserve the integrity of the shaded stream channel and provide habitat for specific wildlife needs.

Sunday Creek is an important asset to this ownership. In addition, the continuous water source enhances the overall quality of this ownership and is very beneficial to both the game and non-game species of reptiles, fish, mammals and birds occupying the adjacent lands.

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

naturally flowing springs, and reservoirs. Forest management activities within an SMZ should leave the forest floor essentially undisturbed with minimum soil exposure. Mechanical site preparation, logging decks, skid trails, and firelanes are restricted within an SMZ. Similarly, roads should not be constructed within an SMZ, except at designated crossings (see Stream Crossing Alternatives below). Roads should cross the stream at a right angle. Drainage structures such as wing ditches, water bars, and cross drain culverts should vent their runoff before they enter the SMZ.

Functioning as buffer strips, SMZ's are very effective in filtering sediment (soil particles) from surface runoff. The water in the runoff can and should reach the stream, but the vegetation in the SMZ filters sediment and other suspended solids resulting from the forest management activity. This filtering process may also lessen any negative effects that pesticides may have on water quality. The trees immediately adjacent to the water provide woody debris to benefit aquatic organisms. The trees also provide shade to the stream, preventing any unnatural changes in water temperature. Direct sunlight can drastically raise water temperatures, which may lower the oxygen content of the water and make it difficult for fish and other aquatic organisms to survive.

Desired Future Conditions: Maintain this area as an uneven aged bottomland hardwood stand.

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

Desired Stand Structure: Uneven Aged

Woodland Stand Description and Management Recommendations

Stand #4 - 5.9 acres Semi-Forested Area – plantation/ natural wooded area

Dominant Species: Planted -Black Walnut
Native - grasses and broadleaf plants, Black Walnut, Sycamore, Silver Maple, Box Elder, Cottonwood

Forest Type or Dominant Vegetation: As Listed in Dominant Species

Stand Diameter or Size Class: Sapling sized planted Walnut trees, larger trees surrounding edges

Stocking Level: Under stocked in center of area, edges well stocked

Stand History: Other

Topography: Level

Invasive plants or insects impacting this stand: Autumn Olive scattered in field and along edges.

Stand Description: This open area was originally planted to trees in 2007 (see below). Poor survival rates in what was the open field area. The heavy grasses, still present in this area, are inhibiting tree growth. Autumn Olive is becoming established in the field. Some nice natural Walnut found along the edges of this area. Access to this area is limited because of surrounding water and the property line location.

Past management activities completed in this stand:

2007 – part of a CRP planting of 26.8 ac along Sunday Creek (parts of ST 1 and all of St 4 in this acreage).

Management Recommendations:
Eradicate Autumn Olive from field before re-planting any of the area
Re-plant open areas to appropriate desirable tree species –CRP project if eligible

Comments: I would plant additional Walnut & Swamp White in the opening in the center of this field. Work on eradicating the clumps of Autumn Olive or it will infest the entire area. If you apply for CRP cost share (must be 2018 or after), then you must be willing to follow planting recommendations from ODNR DOF.

Desired Future Conditions: Develop this semi-forested field into a fully stocked plantation by planting trees additional trees.

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

Desired Stand Structure: Even Aged

Woodland Stand Description and Management Recommendations

Stand # 5 - **3.8** acres

Dominant Species: Sugar Maple, Black Oak, Yellow Poplar, Ash, Red Maple, Black Cherry, White Oak, Ailanthus

Forest Type or Dominant Vegetation: Upland Central Hardwoods

Stand Diameter or Size Class: Small/Medium sawtimber

Stocking Level: Fully stocked

Stand History: Harvesting - "Select cut" by a previous landowner

Topography: Gently sloping upper slope & ridgetop area

Invasive plants or insects impacting this stand: Scattered Grapevines in stand, EAB, several Ailanthus trees identified

Stand Description: Compared to adjacent Stand 6, this area has adequate stocking of trees that provide some crown closure, reducing the amount of reproduction and invasive shrubs in the understory. Area is composed of side slopes and ridgetop areas. Trees are well developed and healthy. The limited amount of Ash trees in stand composition is showing EAB mortality. Quality smaller Sugar Maple trees in this area. This area contains the majority of Oak trees on this tract.

Past management activities completed in this stand: property lines located and marked with signage

Management Recommendations:
Eradicate the scattered Ailanthus trees in this area asap
Cut grapevines from this area, cover entire stand (approx. 1/2 area has vines) overall mainly light populations.

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

Comments: This area is one of the nicest woods on this tract. Fully stocked with desirable species. Good hard mass area for wildlife.
Cut the grapevines & eradicate Ailanthus are the only issues in this stand at this time.

Desired Future Conditions: This area should produce quality hardwood sawtimber in the future.

Desired Forest Type or Dominant Vegetation: Upland Central Hardwoods

Desired Stand Structure: Uneven Aged

Woodland Stand Description and Management Recommendations

Stand # 6 - 16.1 acres

Dominant Species: Ash, Red Maple, Sugar Maple, Black Cherry, Am. Elm, Black Walnut, Sassafras, Black Oak, White Oak, Aspen, Am. Beech, Basswood, Dogwood, Ironwood

Forest Type or Dominant Vegetation: Upland Central Hardwoods

Stand Diameter or Size Class: Poletimber/Small sawtimber

Stocking Level: Fully stocked with desirable species, small openings of saplings

Stand History: Harvesting - High-grade 20-25 years ago by previous owner

Topography: Gently sloping, to steep_middle/upper slope area

Invasive plants or insects impacting this stand: EAB, Autumn Olive, Burning Bush, Barberry, Privet, multi flora rose, grapevines(light)

Stand Description: This middle/upper slope area was heavily harvested and then abandoned. Again, this is a composite area of natural late successional development of woody shrubs and trees. Ash trees showing EAB mortality. Areas of thick understory because of the semi-open crown canopy. Grapevines have not been treated in this area yet. This area is similar to Stand 8, but a different slope aspect, and Stand 10, because all were harvested at the same time.

Past management activities completed in this stand: Property lines located and marked with signage.

Management Recommendations:
If seeking EQIP Project funding – Cut all grapevines from this area and begin treatment of the non-native invasive woody shrubs & vines that were identified in this area.
Work on the non-native invasive species – treating Autumn Olive/Barberry/Burning Bush as time permits.
A minimal intensity activity that would benefit this area greatly would be to cut the grapevines from "crop" trees (Walnut, Oak spp., Sugar Maples, Poplar) in this area

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

Comments: This area will continue to naturally develop into forestland again.

Desired Future Conditions: Again, this area will develop in the future with TSI work. Work to create a fully stocked stand of desirable trees

Desired Forest Type or Dominant Vegetation: Upland Central Hardwoods

Desired Stand Structure: Uneven Aged

Woodland Stand Description and Management Recommendations

Stand # 7 - 15.9 acres

Dominant Species: Silver Maple, Red Maple, Box Elder, Black Walnut, Yellow Buckeye, White Ash, Sycamore, Am. Elm, Hackberry, Basswood, Tulip Poplar, Spice Bush, Paw Paw

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

Stand Diameter or Size Class: Poletimber/Small sawtimber

Stocking Level: Under stocked, to areas fully stocked

Stand History: TSI - Grapevine control on 7.5 ac

Topography: Nearly level intermittent stream drainage area

Invasive plants or insects impacting this stand: Autumn Olive & Burning Bush along the edges of Stand #6. Grapevines are an issue in the part of this stand that was not cut in 2009.

Stand Description: This area encompasses a large hollow, intermittent stream drainage. Area has regenerated naturally, there are portions with heavy non-native invasive species populations. Quality Black Walnut trees scattered throughout the area. The portion of this stand east of the powerline has crown closure, less invasive shrubs and a more diverse mixture of trees.

Past management activities completed in this stand: EQIP Project 2009 - Grapevines cut in western end. A hiking trail is being maintained thru this area.

Management Recommendations:
If seeking EQIP Project funding – Cut all grapevines from this area and begin treatment of the non-native invasive woody shrubs & vines that were identified in this area.
Work on the non-native invasive species – treating Autumn Olive/Barberry/Burning Bush as time permits.
A minimal intensity activity that would benefit this area greatly would be to cut the grapevines from "crop" trees (Walnut, Oak spp., Sugar Maples, Poplar) in this area

Is a timber harvest recommended? No, not necessary at this time, but a light harvest removing some of the overstory could improve done at some point. If the stand canopy is opened up, non-native invasive will infest this area, so put off as long as possible.

Comments: Moist hollow site. Area has some small, quality, Walnut sawlog sized trees present. This area should be managed as a SMZ. Named on an old mine map as Stony Camp stream.

Desired Future Conditions: Manage area for quality Black Walnut sawtimber trees

Desired Forest Type or Dominant Vegetation: Bottomland Hardwoods - better drained site
Desired Stand Structure: Uneven Aged

Woodland Stand Description and Management Recommendations

Stand # 8 - **32.6** acres

Dominant Species: Box Elder, Red Maple, Sugar Maple, Black Cherry, Am. Elm, Ash, Black Walnut, Sassafras, Black Oak, White Oak, Am. Beech, Basswood, Dogwood, Yellow Buckeye

Forest Type or Dominant Vegetation: Upland Central Hardwoods

Stand Diameter or Size Class: Poletimber/Small sawtimber

Stocking Level: Fully stocked with desirable species, small openings of saplings

Stand History: Harvesting - High-grade 20-25 years ago by previous owner

Topography: Gently sloping, with steep sections & flat benches, ridgetop

Invasive plants or insects impacting this stand: EAB, Autumn Olive, Burning Bush, Barberry, Privet, multi flora rose, grapevines(light)

Stand Description: This area is similar to Stand 8, because it was harvested at the same time. This is a middle/upper south & west facing slope area. Again, this is a composite area of natural late successional development, patches of pole sized trees and scattered low quality sawlog trees in draws and on steeper slope areas. Ash trees showing EAB mortality. Areas of thick understory because of the semi-open crown canopy. Grapevines have not been treated in this area yet.

Past management activities completed in this stand: Property lines located and marked with signage.

Management Recommendations:
If seeking EQIP Project funding – Cut all grapevines from this area and begin treatment of the non-native invasive woody shrubs & vines that were identified in this area.
Work on the non-native invasive species – treating Autumn Olive/Barberry/Burning Bush as time permits.
A minimal intensity activity that would benefit this area greatly would be to cut the grapevines from "crop" trees (Walnut, Oak spp., Sugar Maples, Poplar) in this area

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

Comments: This area will continue to naturally develop into forestland again.

Desired Future Conditions: Again, this area will develop in the future with TSI work. Work to create a fully stocked stand of desirable trees

Desired Forest Type or Dominant Vegetation: Upland Central Hardwoods

Desired Stand Structure: Uneven Aged

Woodland Stand Description and Management Recommendations

Stand # 9 - **2.8** acres Non-Forested Area_ Powerline R/W

Dominant Species: NA

Forest Type or Dominant Vegetation: N/A

Stand Diameter or Size Class: N/A

Stocking Level: N/A

Stand History: N/A

Topography: Nearly level

Invasive plants or insects impacting this stand: Autumn Olive, Burning Bush, Barberry, multi flora rose, along edges (addressed in adjacent stand descriptions)

Stand Description: This stand covers the powerline r/w, which bisects the eastern 1/3 of this ownership.

Past management activities completed in this stand: N/A

Management Recommendations:
Annually inspect for invasive species and work on the eradication of any found

Is a timber harvest recommended? N/A

Comments: The edges of this area will be a persistent "problem areas" for the landowner, in regards to non-native invasive plants becoming established in.

Desired Future Conditions:

Desired Forest Type or Dominant Vegetation:

Desired Stand Structure:

Woodland Stand Description and Management Recommendations

Stand # 10 - 27.0 acres

Dominant Species: Yellow Buckeye, Tulip Poplar, Ash, Red Maple, Sugar Maple, Black Cherry, Am. Elm, Black Walnut, Red Oak, White Oak, Am. Beech, Spice Bush, Paw Paw

Forest Type or Dominant Vegetation: Upland Central Hardwoods

Stand Diameter or Size Class: Poletimber/Small sawtimber

Stocking Level: Fully stocked with desirable species

Stand History: Harvesting - High-grade 20-25 years ago by previous owners

Topography: Draws/Ravines,rolling lands

Invasive plants or insects impacting this stand: EAB, Autumn Olive, multi flora rose, grapevines, burning bush, barberry

Stand Description: Like Stands 6 & 8, this area was harvested 30+ years ago and then left to regenerate with no management. This area encompasses several small hollows and steep side slopes. This area is more developed than other parts of the farm because it was not as heavily harvested –distance & rugged terrain affected harvesting. Area is fairly well stocked with suitable species of trees, for the site.

Past management activities completed in this stand: Property lines located and marked with signage.

Management Recommendations:
If seeking EQIP Project funding – Cut all grapevines from this area and begin treatment of the non-native invasive woody shrubs & vines that were identified in this area.
Work on the non-native invasive species – treating Autumn Olive/Barberry/Burning Bush as time permits.
A minimal intensity activity that would benefit this area greatly would be to cut the grapevines from "crop" trees (Walnut, Oak spp., Sugar Maples, Poplar) in this area

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

Comments: This area will continue to naturally develop into mature forestland again.

Desired Future Conditions: Again, this area will develop in the future with TSI work. Work to create a fully stocked stand of desirable trees

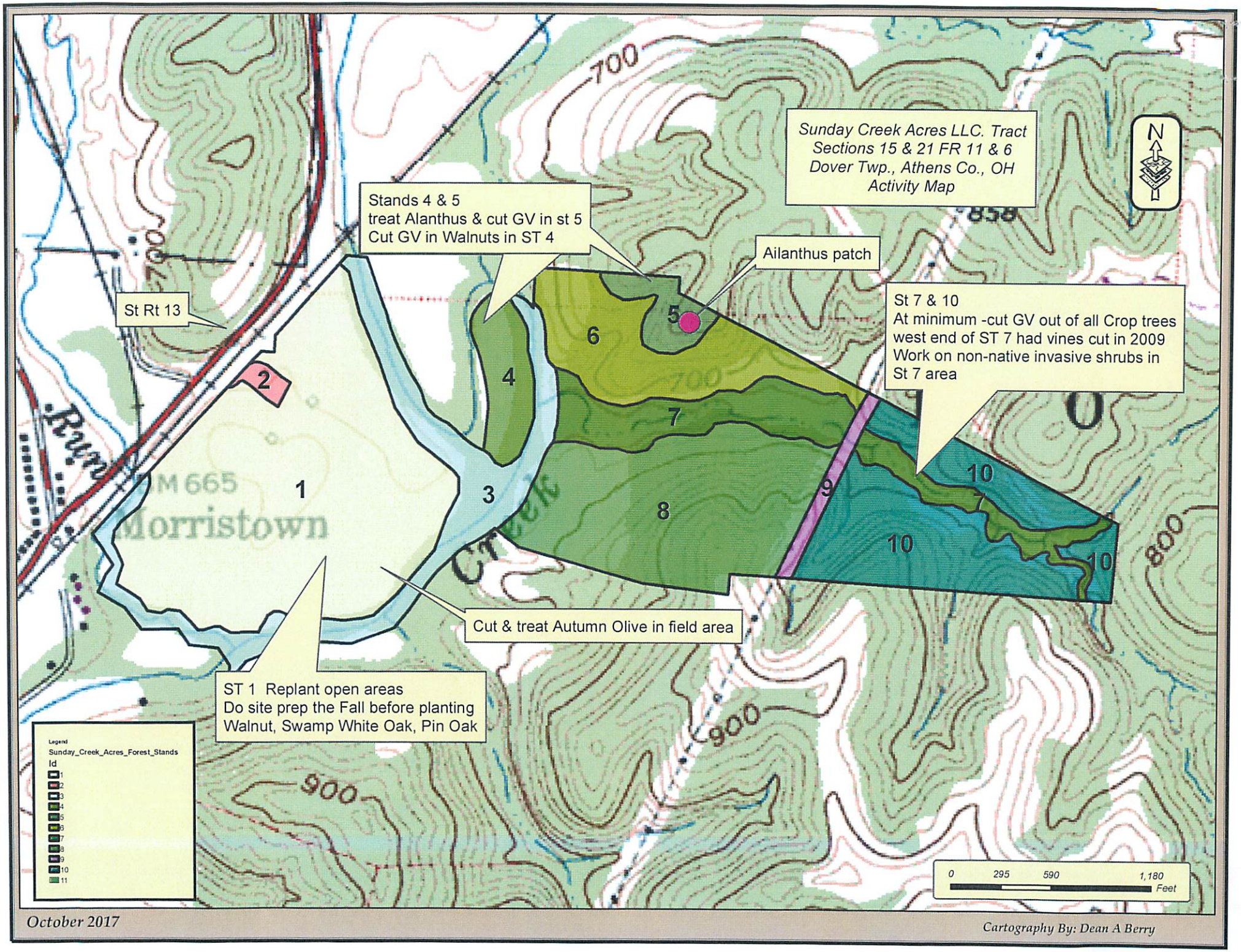
Desired Forest Type or Dominant Vegetation: Upland Central Hardwoods

Desired Stand Structure: Uneven Aged

Recommended Management Activity Schedule

Year(s) Suggested	Mgmt. Unit	Required Task?	EQIP Practice?	Acres	Recommendations
2022, 2027	All	☒	☐	NA	Inspect & remark any portions of property lines with paint and signs necessary to help prevent illegal trespass. **This task must be completed before this farm is eligible for enrolment into either OFTL or CAUV property tax reduction programs.**
2018 -2023	4 & 5	☐	☒	4 + total of vines ½ ac Ail.	Cut all grapevines from these areas, cover entire stand because of scattered vines. Eradicate the identified Ailanthus patch in St 5. Do follow up inspections and any additional remedial work as needed.
2019 -2027	1	☐	☒	10-15 acres	Site prep and plant all or parts of this field where the previous 2007-8 plantings failed to achieve adequate stocking levels. In addition, cut and treat the non-native invasive species in the field and along the field edge to eliminate seed source and planting site contamination.
2020-2027	7 & 10	☐	☒	34 ac Note 8 ac of St 7 was a 2009 EQIP project	Work on cutting grapevines from trees in these areas – cover entire stand. This work could be done in conjunction with other TSI activities: Non-native woody shrub eradication if applying as an EQIP Project. Minimal activities in these areas should be cutting the grapevines from all potential "crop" trees
2022 & 2027	Whole Property	☒	☐	Next Site Visit – Woodland reviews are recommended at least once every five years, and no more than ten years, based upon the date of the last actual woodland evaluation conducted by your forester	

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



October 2017

Cartography By: Dean A Berry

Woodland Resource Descriptions

General Soils Information – a general description of the soil type(s) and the general productive capacity of the soil:
Soil Type(s): BrD, Chg1AF, DtF, GmB, RcD, WhD, WhE, WkF, WpB
Soil Drainage Class: Moderately well drained to well drained
General Description: See Soils maps and descriptions in Addendum for detailed descriptions. Also included in the Addendum is a map and associated chart showing the Forest Productivity (Tree Site Index) of the tract.
An on-line resource that can be used to obtain detailed soils information is:
http://websoilsurvey.nrcs.usda.gov/app/
Site Class: (using Woodland Productivity): Good _ Species Used - Northern Red Oak rating

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

This tract was heavily harvested 30+ years ago. Short term timber production potential is limited for this property because the majority of the stands are young and just beginning to mature. The woodlands are stocked with a variety of marketable timber species that will produce valuable wood products in the future. Timber stand improvement (TSI) management practices such as grapevine, undesirable hardwood species control, and elimination of non-native invasive species of woody shrubs & trees, will certainly enhance the quality and value of your timber resources over time, and are important tasks to implement in order to maximize the timber production potential in your woodlands. Emerald Ash Bore is causing damage to the forested areas throughout the farm. There are numerous pole & small sawlog diameter Walnut trees in Stand 7 that should develop into veneer quality trees.

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

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

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

The diversified size class of trees & shrubs of the forested land on this tract provides suitable habitat for a variety of game and non-game species of birds and animals. Openings, such as the bottomland field, access roads, powerline right-of-ways that are grass covered are providing the additional feeding & nesting sites. Areas of thick understory benefit both game & non-game species of mammals and birds. The stream area is an important ecological asset for a variety of amphibian species, reptiles, fish and insects.

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

There are several wetland classified areas identified in the National Wetlands Inventory Database, the most significant along the Sunday Creek streambank area. (See attached Map) Review was completed 10/4/2017.

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.

Sunday Creek, a perennial stream, forms part of the boundaries of this ownership. An intermittent stream and its numerous side branches run the entire length of this ownership. On an old mining map this stream was labeled *Stony Camp.*

Best Management Practices – maintaining the integrity and productivity of woodland sites: As bad as the last harvest was (in regards to tree selection), the logger did construct water bars and seeded the log roads during sale closeout. Trails are in good shape and erosion is 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.

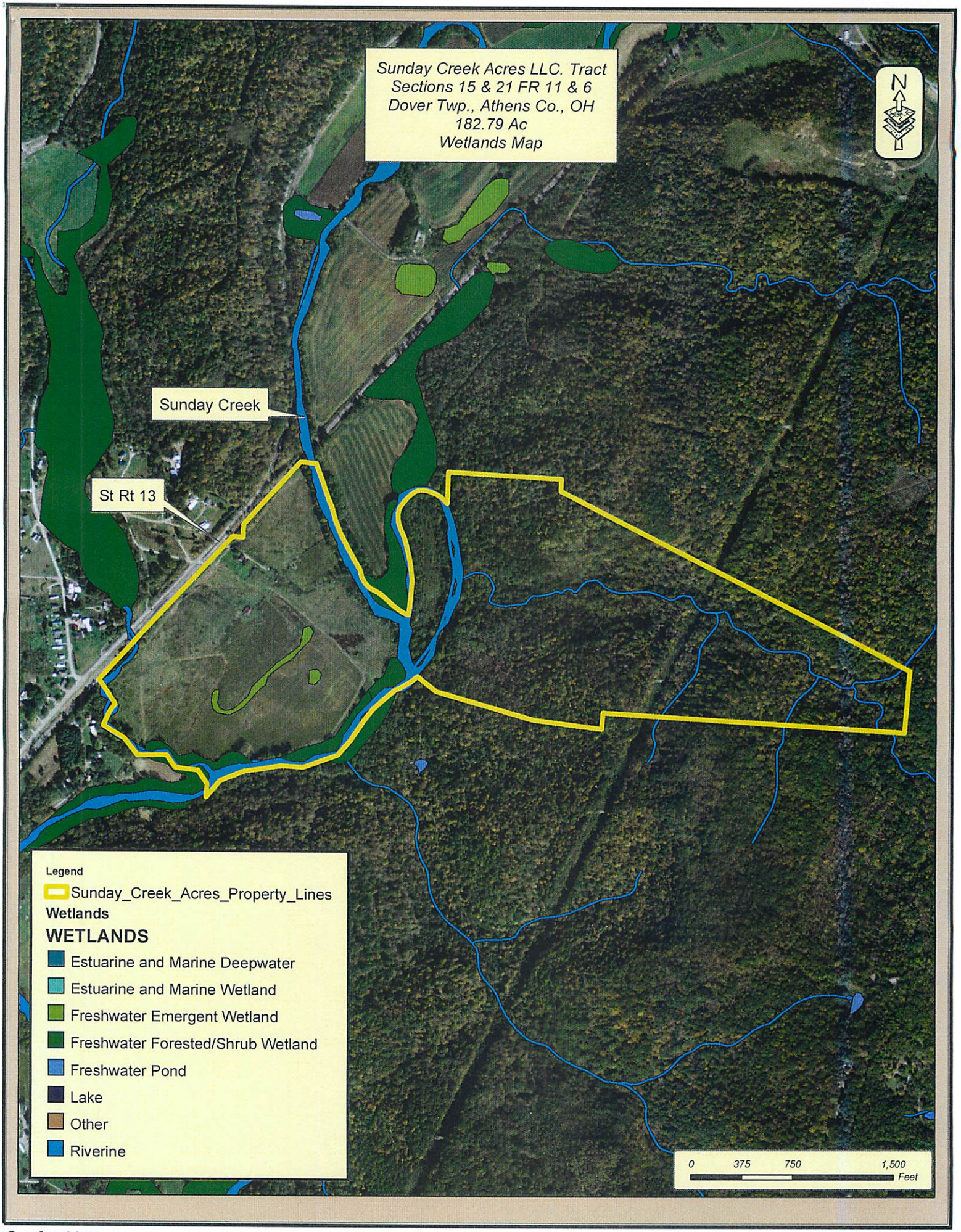
Hilly to steeply sloped terrain is more subject to site disturbance and subsequent soil erosion and sedimentation. Forest management often may still be accomplished on these steep areas with the use of BMP's. Even when the forest terrain is nearly level to gently rolling, and where slope does not present 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/ or at your local Division of Forestry office.

Practically speaking, the use of BMP's to prevent soil loss is a sound agricultural practice that helps maintain site & timber productivity. Also, implementing BMP's helps you comply with Ohio's Agricultural Pollution Abatement Law (HB 88) standards for Silvicultural Operations. There is not an issue with any of the trails and roads on this tract.

Archeological/Historical Resources – a general consideration and description of such resources:

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



October 2017

Cartography By: Dean A Berry

No known significant / historical / ecological sites are listed in the State Registry for this tract. Landowner did not know of any unique sites on this tract. 10/15/2017

Old "deep" mining maps that included this tract are enclosed in this plan for landowner information. It does not appear any mine openings were located on this tract.

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

This forested tract does not contain any attributes that could contribute to what would be considered a unique landscape. Review of maps of the area and records did not reveal any indication of this tract being located in a unique landscape classification. 10/15/2017

Recreation – current and potential recreational activities at property:

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

Creating hiking/equine trails will improve access and your opportunities for the use of the area. A walk/ride in the forest provides a time of learning for all, but it can also be a time to relax and observe the natural settings. The woodlands can be a quiet place of solitude after a busy workday, or anytime for that matter. This area is utilized by a hunting group.

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

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

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

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

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

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

What to Submit for Environmental Review

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

1. Project Description: Site location (e.g., county, latitude and longitude), Onsite habitats, Proposed work

Proposed impacts (for example, is in-water work necessary? Is tree cleaning necessary?),
Proposed BMP's

2. Maps that delineate the area of impact or work area: Topographic, Aerial Site plans
3. Photographs representative of the site
4. Shapefiles, KMZ files

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

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

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 Adeligid, Hemlock Woolly Adeligid, Bronze Oak Borer.....

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

Ailanthus is in Stand 5 and Autumn Olive & Burning Bush Stand 7 are the most prevalent issues on this tract. The suppression of these is recommended in this plan.

EAB is present and causing mortality in the Ash trees on this farm.

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 success ional 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 tract is adjacent to St Rte. 13, so maintaining the visual appearance of a natural forest landscape is important to the landowner.

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

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

Active forest managers may find opportunities for carbon trading and participation in ecosystem service markets.

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.

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

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

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

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

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

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

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

A list of common forestry terms is included in the addendum of this plan.

Forest Health – a general description of the health of the woodland: Most of the forest areas are in acceptable condition, considering the lack of actual forest management that had been done by the previous Owners. The majority of the forested areas are the result of natural succession, upon abandonment after a heavy timber harvest. EAB is having a significant impact on portions of the forested areas of this tract. Non-native invasive plants: Autumn Olive, Burning Bush & Ailanthus in particular, are spreading throughout most of this tract.

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 types 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*

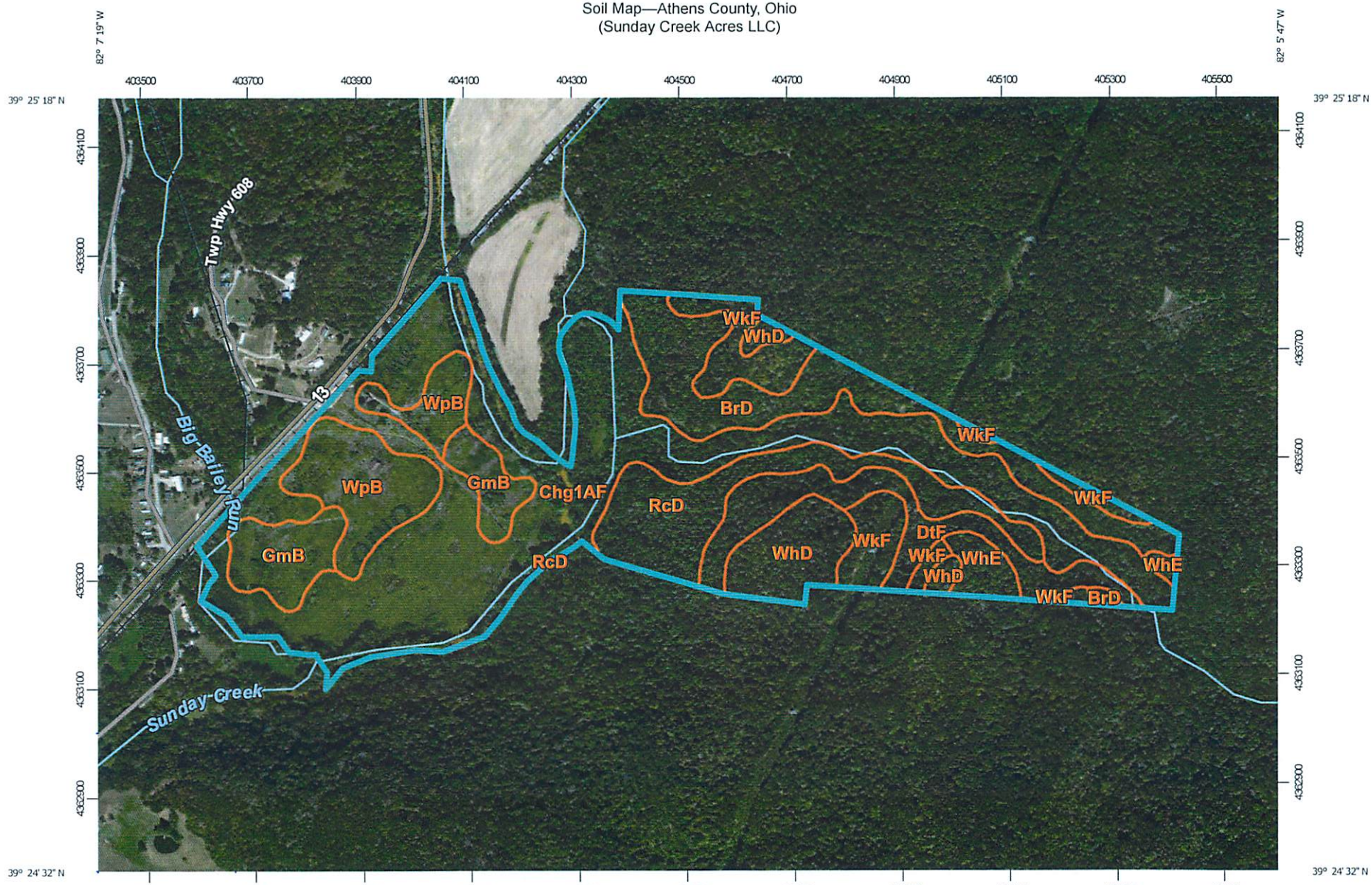
Addendums

- Soils Report with - Soil Map and Map Unit Description
- Forest Productivity (northern red oak Site Index)
- Black Walnut Suitability Index
- Forest Productivity Report

Landowner Plan packet also contains any of the following that they have not already received in previous plans:

- Forestry Terms
- Autumn Olive Fact Sheet
- Ailanthus Fact Sheet
- Burning Bush Fact Sheet
- 1000 Canker in Black Walnut
- How to cut grapevines
- Tree Planting handout

Soil Map—Athens County, Ohio
(Sunday Creek Acres LLC)



Map Scale: 1:10,000 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 100 200 400 600

Feet
0 450 900 1800 2700

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

MAP LEGEND

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

Soils
- Soil 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 17, Sep 16, 2016

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

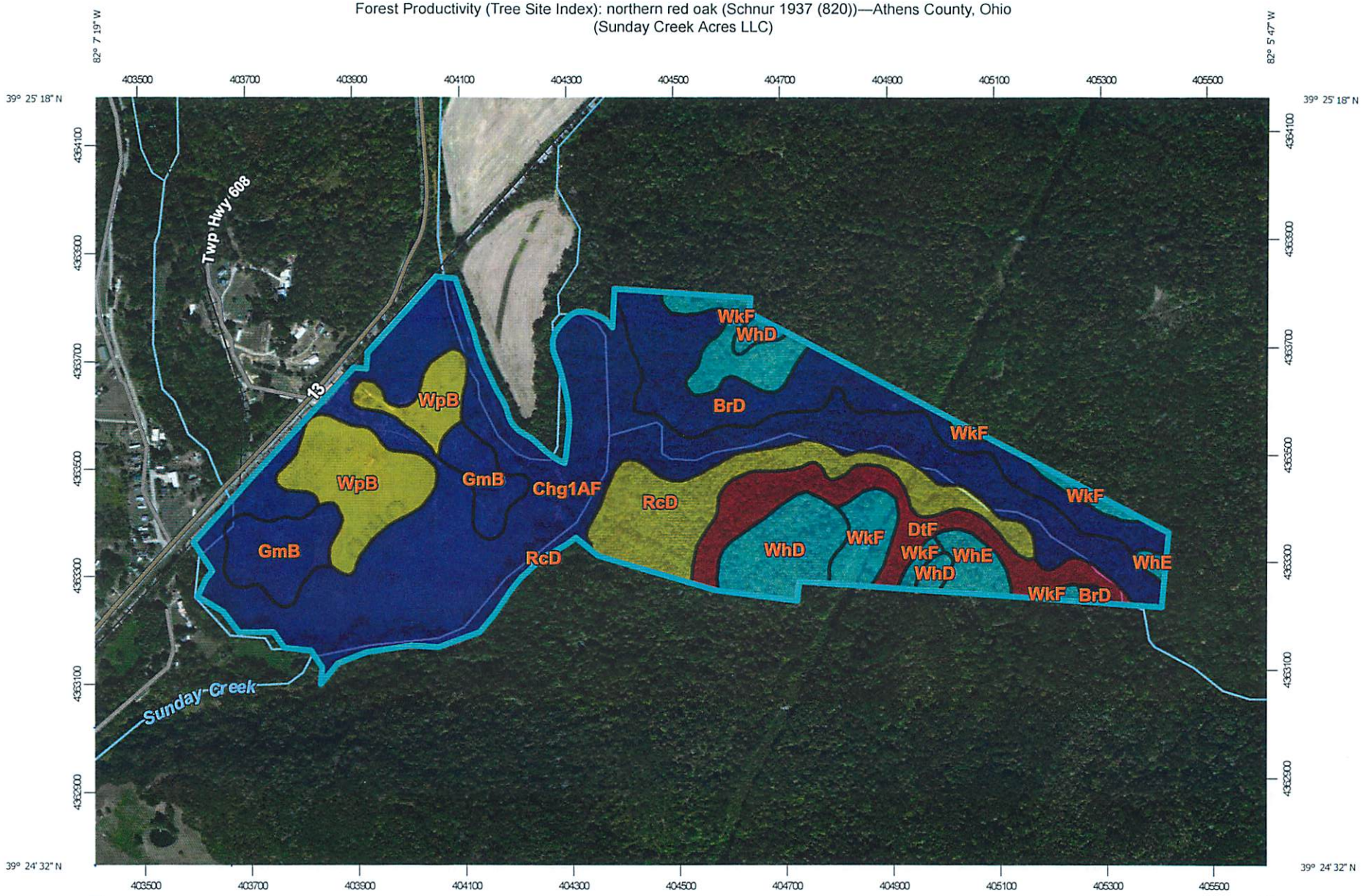
Date(s) aerial images were photographed: Apr 5, 2012—Mar 26, 2017

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

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
BrD	Brookside silt loam, 15 to 25 percent slopes	20.2	11.3%
Chg1AF	Chagrin silt loam, 0 to 3 percent slopes, frequently flooded	76.9	43.1%
DtF	Dekalb-Westmoreland complex, 40 to 70 percent slopes	13.2	7.4%
GmB	Glenford silt loam, 3 to 8 percent slopes	10.8	6.1%
RcD	Richland loam, 15 to 25 percent slopes	16.3	9.1%
WhD	Westmoreland-Guernsey silt loams, 15 to 25 percent slopes	9.8	5.5%
WhE	Westmoreland-Guernsey silt loams, 25 to 40 percent slopes	3.5	2.0%
WkF	Westmoreland-Guernsey silt loams, benched, 40 to 70 percent slopes	12.4	7.0%
WpB	Wheeling loam, 3 to 8 percent slopes	15.4	8.6%
Totals for Area of Interest		**178.6**	**100.0%**

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



MAP LEGEND

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

Soils

Soil Rating Polygons
- <= 62
- > 62 and <= 80
- > 80 and <= 81
- > 81 and <= 86
- Not rated or not available

Soil Rating Lines
- <= 62
- > 62 and <= 80
- > 80 and <= 81
- > 81 and <= 86
- Not rated or not available

Soil Rating Points
- <= 62
- > 62 and <= 80
- > 80 and <= 81
- > 81 and <= 86
- Not rated or not available

Water Features
- Streams and Canals

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

Background
- Aerial Photography

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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
BrD	Brookside silt loam, 15 to 25 percent slopes	86	20.2	11.3%
Chg1AF	Chagrin silt loam, 0 to 3 percent slopes, frequently flooded	86	76.9	43.1%
DtF	Dekalb-Westmoreland complex, 40 to 70 percent slopes	62	13.2	7.4%
GmB	Glenford silt loam, 3 to 8 percent slopes	86	10.8	6.1%
RcD	Richland loam, 15 to 25 percent slopes	80	16.3	9.1%
WhD	Westmoreland-Guernsey silt loams, 15 to 25 percent slopes	81	9.8	5.5%
WhE	Westmoreland-Guernsey silt loams, 25 to 40 percent slopes	81	3.5	2.0%
WkF	Westmoreland-Guernsey silt loams, benched, 40 to 70 percent slopes	81	12.4	7.0%
WpB	Wheeling loam, 3 to 8 percent slopes	80	15.4	8.6%
Totals for Area of Interest			**178.6**	**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.

Rating Options

Units of Measure: feet

Tree: northern red oak

Site Index Base: Schnur 1937 (820)

Aggregation Method: Dominant Component

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Interpret Nulls as Zero: No

Forestland Productivity

This table can help forestland owners or managers plan the use of soils for wood crops. It shows the potential productivity of the soils for wood crops.

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

The *volume of wood fiber*, a number, is the yield likely to be produced by the most important tree species. This number, expressed as cubic feet per acre per year and calculated at the age of culmination of the mean annual increment (CMAI), indicates the amount of fiber produced in a fully stocked, even-aged, unmanaged stand.

Trees to manage are those that are preferred for planting, seeding, or natural regeneration and those that remain in the stand after thinning or partial harvest.

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

Report—Forestland Productivity

Forestland Productivity–Athens County, Ohio				
Map unit symbol and soil name	Potential productivity			Trees to manage
	Common trees	Site Index	Volume of wood fiber	
			Cu ft/ac	
BrD—Brookside silt loam, 15 to 25 percent slopes				
Brookside	Northern red oak	86	72.00	Northern red oak, Tuliptree
	Tuliptree	96	100.00	

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	
Chg1AF—Chagrin silt loam, 0 to 3 percent slopes, frequently flooded				
Chagrin	Black cherry	—	—	Black walnut, Eastern white pine, Northern red oak, Red pine, Tuliptree, White ash, White oak
	Black walnut	—	—	
	Northern red oak	86	72.00	
	Sugar maple	86	57.00	
	Tuliptree	96	100.00	
	White ash	—	—	
	White oak	—	—	
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	
GmB—Glenford silt loam, 3 to 8 percent slopes				
Glenford	Northern red oak	86	72.00	Northern red oak, Pin oak, Yellow-poplar
	Pin oak	85	66.00	
	Yellow-poplar	96	100.00	
RcD—Richland loam, 15 to 25 percent slopes				
Richland	Black walnut	—	—	Eastern white pine, Northern red oak, Red pine, Tuliptree, White ash, White oak
	Northern red oak	80	57.00	
	Tuliptree	90	86.00	
	White ash	—	—	

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	
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	—	—	
WhE—Westmoreland-Guernsey 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	
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	
			Cu ft/ac	
WkF—Westmoreland-Guernsey silt loams, benched, 40 to 70 percent slopes				
Westmoreland	Eastern white pine	75	143.00	Eastern white pine, Northern red oak, Red pine, Tuliptree, White ash, White oak
	Northern red oak	81	57.00	
	Tuliptree	90	86.00	
Guernsey	Black cherry	—	—	Eastern white pine, Northern red oak, Red pine, Tuliptree, White ash, White oak
	Black walnut	—	—	
	Northern red oak	78	57.00	
	Sugar maple	—	—	
	Tuliptree	95	100.00	
	White ash	—	—	
	White oak	—	—	
WpB—Wheeling loam, 3 to 8 percent slopes				
Wheeling	Northern red oak	80	57.00	Black walnut, Eastern white pine, Northern red oak, Tuliptree, White ash, White oak
	Tuliptree	90	86.00	

Data Source Information

Soil Survey Area: Athens County, Ohio
Survey Area Data: Version 17, Sep 16, 2016