

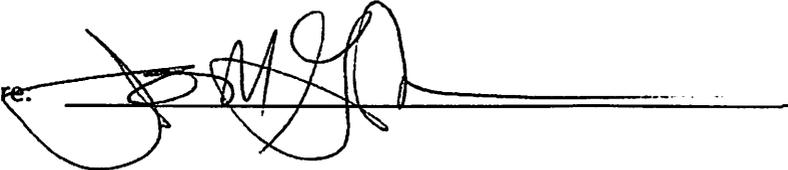
Woodland Stewardship Management Plan

Boone Road Enterprises

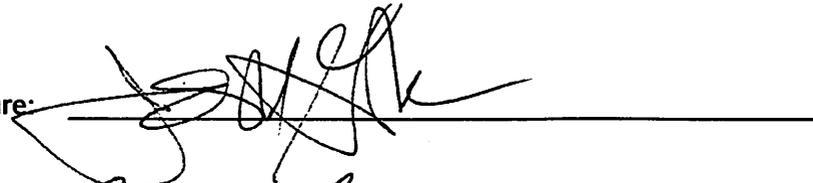
Created: February 13, 2022

Owner: Boone Road Enterprises, LLC

Representative: James M. Gresh, Managing Member, Boone Road Enterprises

Signature: 

Prepared by: James Gresh & Ed Romano, Consulting Forester

Signature: 

Signature: *Edward Romano*

This plan is valid for the period of 03-01-2022 to 03-01-2032

Plan status: New (for new owner) – Replaces plan in place by prior owner

Owner: Boone Road Enterprises, LLC.

Address: 9135 Gans Avenue NE, Canton, OH 44721

Phone: 330-224-7038

County: Athens

Parcel(s): L010010050001 and L010010050000

Location: Murphy Road, Troy Township

Woodland Stewardship Acreage: 107.67

Non-woodland Stewardship Acreage: 1.2

Total Property Acres: 108.87

This plan was written to qualify the landowner's woodland for the CAUV program.

Landowner Objectives:

1. **Ecology: achieve a diverse, healthy, and natural ecosystem* for trees, plants, fungi, vertebrates & invertebrates**
2. **Conduct Close-to-Nature Forestry** with continuous canopy cover, complex structure, and natural regeneration.**
3. **Perform small, frequent timber harvests at the increment to support Nature-Based Forestry and produce income.**
4. **Qualify for the CAUV property tax program.**

General Woodland Description & Management Approach:

The property is a second growth deciduous forest located in the hills of Troy Township, Athens County, Ohio. The property contains 3 stands of mixed hardwood timber. A management plan created in 2007 has been followed by the prior owner. A clearcut of about 13 acres and selective cuts of mature trees in other areas has occurred roughly 14 years ago. Light to moderate presence of grape vines is present in patches and there is no significant presence of invasive species (including no Ailanthus).

The forest has varying conditions throughout the property. Biodiversity is good with respect to tree species; however, coarse woody debris is very limited given the even-age structure of this young forest. Forest structure is mostly even-aged, closed canopy with limited understory; however, some areas – especially the clearcut area – are still in early-stage succession. This property contains two perennial stream channels along the western and eastern edges. All soil-types present are considered non-hydric, and no wetland conditions are present. Wildlife presence seems healthy but has limited general biodiversity potential due to the mature even-age forest structure and lack of woody debris.

***Key ecological features** selected by the landowner include: Continuous but complex canopy cover, CWD (Coarse Woody Debris – especially downed logs and snags), old residual trees (especially with cavities), and adequate shrub cover.

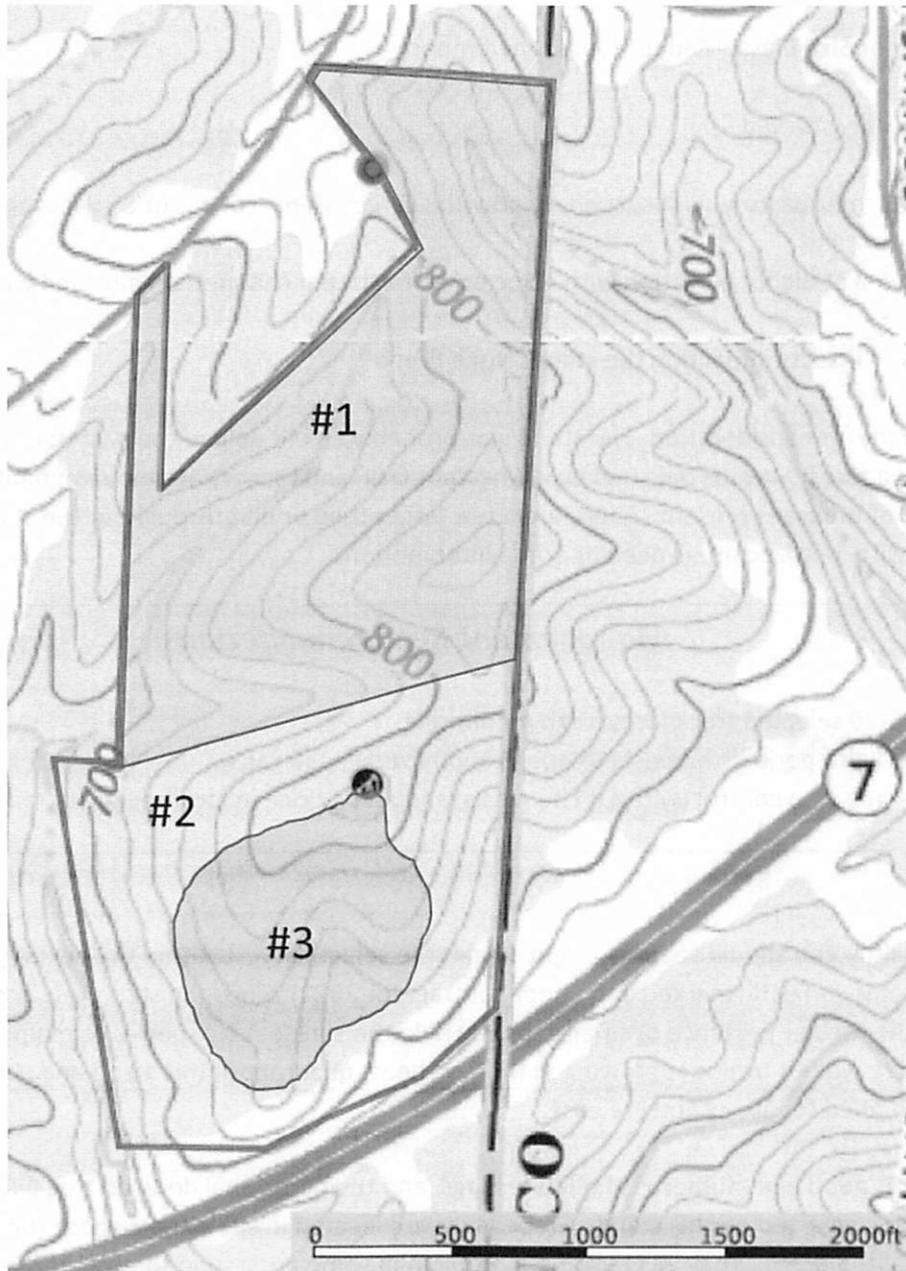
****Key protocols for Close-to-Nature Forestry** include: 1. **maximum** removals per harvest should be 15%-20% of standing volume (for this property that would be 5 trees > 18" dbh per acre); 2. frequent, regular harvests at the annual increment (for this property is an annual average of about 1.5 trees >18" dbh per acre per year); 3. maximum canopy gaps created in any harvest should be less than 1 acre in size; 4. no use of chemicals, 5. preferred culling method is by girdling to create snags, and 6. all topers should remain to create CWD.

Map of Management Units

Stand #1 = Oak-Hickory (White Oak, Red Oak, Chestnut Oak, Hickory, Soft Maple)

Stand #2 = Oak-Hickory (White Oak, Red Oak, Chestnut Oak, Scarlet Oak, Hickory)

Stand #3 = Stand Regenerating from a 2007 silvicultural clearcut



Woodland Stand Description and Management Recommendations

Stand #1 – 54.5 acres

Dominant Species: White Oak, Red Oak, Chestnut Oak, and Hickory

Forest Type or Dominant Vegetation: As noted above in Dominant Species

Stand Diameter or Size Class: Medium/Small Sawtimber

Stocking Level: Fully stocked.

Stand History: Former pasture with secondary growth. Larger stems cut about 25 years ago.

Topography: Level at higher elevation with slope down to stream channels on east and west borders

Invasive plants or insects impacting the stand: None found

Present conditions for consideration: The stand was probably an old field in the past that was left to naturally regenerate into a forest. White Oak, Red Oak, Chestnut Oak, and Hickory are the dominant species in this stand making up 90% of the trees present. There are a few larger tulip poplar throughout the stand. Grape vines are generally light with localized areas needing some intervention.

Management Recommendations:

Mark 15-20 selected trees for growth monitoring
 Perform light, periodic harvests to open canopy with small gaps
 Some grape vine control (without chemicals) should be done in localized areas.

Comments:

The stand is healthy and should support a light single tree select harvest within the next 4 years (following the light harvest that is currently marked and under contract for 2022). Since the stand is fully stocked with advance regeneration, the regular presence of small gaps will help the sun-seeking species to maintain vigorous growth. Some young black walnut trees are growing in the Northeast quadrant of this stand and should be monitored for growth rate and need for any canopy release.

Wildlife habitat is good with numerous hollows, snags, and the occasional downed tree with good decay. No cull tree utilization is suggested on this stand. Grape vines are located in spots throughout the stand with moderate presence in localized areas. They will become a problem in some areas, and they could start suppressing and weakening trees. The vines should be dealt with soon so that the problem does not get worse and starts to affect good trees.

Woodland Stand Description and Management Recommendations

Stand #2 – 39.3 acres

Dominant Species: White Oak, Red Oak, Chestnut Oak, Scarlet Oak, Hickory, Soft Maple, Black Cherry.

Forest Type or Dominant Vegetation: As noted above in Dominant Species

Stand Diameter or Size Class: Medium/Small Sawtimber

Stocking Level: Fully stocked.

Stand History: Stand is roughly 50 years old since prior cuts. Considered immature in last woodland plan.

Topography: Level

Invasive plants or insects impacting the stand: None found

Present conditions for consideration: The stand was probably an old field in the past that was left to naturally regenerate into a forest. Mixed oaks, soft maple, and tulip poplar are present in this stand making up 75% of the trees present. There is some larger hard maple throughout the stand.

Management Recommendations:

Mark 15-20 selected trees for growth monitoring

Perform light, periodic harvests to open canopy with small gaps

Comments:

The stand is healthy and should support a light single tree select harvest within the next 4-5 years following the currently marked and contracted selection cut harvest of 2022. Since the stand is fully stocked with good advance regeneration, the regular presence of small gaps will help the sun-seeking species to maintain vigorous growth. Extensive presence of healthy, young white oak trees are growing in this stand and should be monitored for growth rate and need for any canopy release.

Wildlife habitat is abundant with hollows, snags, and the occasional downed tree with good decay. No cull tree utilization is suggested on this stand. The definition of a cull tree is a live tree that does not contain a merchantable saw log due to poor form, quality, or undesirable species. Girdling low-value cull trees and undesirable species will provide valuable habitat for den-dwelling species and woodpeckers in the area. It will also open the canopy a little and provide more space for merchantable trees to grow and develop.

Woodland Stand Description and Management Recommendations

Stand #3 – 13.9 forested acres (15.1 acres total)

Dominant Species: Soft Maple, Tulip Poplar, Aspen, American beech, black oak, scarlet oak, chestnut oak, all hickories.

Forest Type or Dominant Vegetation: As noted above in Dominant Species

Stand Diameter or Size Class: Pole and Small Sawtimber

Stocking Level: Over stocked.

Stand History: Recovering stand that was clearcut in 2007 as per the prior woodland management plan.

Topography: Level

Invasive plants or insects impacting the stand: None found

Present conditions for consideration: The stand was clear-cut in 2007 with recommended treatment of herbicides post-harvest. It is unclear whether the herbicide treatment was done. The stand has been naturally regenerating since the clearcut. Soft Maple, Tulip Poplar, Beech and Aspen are the dominant species in this stand making up 80% of the trees present. There are some mixed oaks regenerating in the stand. Since the stand is recovering from a clear-cut, regeneration monitoring should be a priority.

Management Recommendations:

Mark 10-15 selected trees for growth monitoring

Consider some stand thinning to open canopy with small to medium gaps

Regular monitoring of regeneration and possible deer exclosures.

Comments:

The stand is reasonably healthy but is in an early-successional phase with a fairly high presence of pioneer species and other species of lower commercial value. Natural development of the stand should be the primary plan with periodic monitoring for the need of any intervention such as culling by girdling or possible thinning (not normally preferred when using Close-to-Nature Forestry).

Diversity of wildlife habitat in the entire property is aided by this early-successional stand, however, numerous meadows also will also provide early successional habitats over time. At this time, it is recommended that this stand be allowed to progress with minimal to no intervention.

The Soil Survey shows that the Study Area is underlain by nine (9) soil types:

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

- Slope: 25 to 40 percent
- Depth to restrictive feature: 36 inches to sandstone bedrock
- Natural drainage class: Well drained
- Runoff class: High
- Permeability: Moderately rapid or rapid
- Available water capacity: Low or very low

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

- Slope: 40 to 70 percent
- Depth to restrictive feature: 36 inches to sandstone bedrock with some escarpments
- Natural drainage class: Well drained
- Runoff class: High
- Permeability: Moderately rapid or rapid
- Available water capacity: Low or very low

GsB Guernsey silt loam, 3 to 8 percent slopes.

- Slope: 3 to 8 percent
- Depth to restrictive feature: 50 inches to siltstone bedrock
- Natural drainage class: Moderately well drained
- Runoff class: Medium
- Permeability: Moderately slow or slow
- Available water capacity: Moderate

GsC Guernsey silt loam, 8 to 15 percent slopes.

- Slope: 8 to 15 percent
- Depth to restrictive feature: 50 inches to siltstone bedrock
- Natural drainage class: Moderately well drained
- Runoff class: Rapid
- Permeability: Moderately slow or slow
- Available water capacity: Moderate

GuC Guernsey-Upshur complex, 8 to 15 percent slopes.

- Slope: 3 to 8 percent
- Depth to restrictive feature: 50 inches to siltstone bedrock
- Natural drainage class: Moderately well drained
- Runoff class: Rapid
- Permeability: Moderately slow or slow
- Available water capacity: Moderate

VcD Vandalia-Richland complex, 15 to 25 percent slopes.

- Slope: 15 to 25 percent
- Organic matter content: Moderate
- Natural drainage class: Well drained
- Runoff class: Very rapid
- Permeability: Moderately slow or slow
- Available water capacity: Moderate

VcE Vandalia-Richland complex, 25 to 40 percent slopes.

- Slope: 25 to 40 percent
- Organic matter content: Moderate
- Natural drainage class: Well drained
- Runoff class: Very rapid
- Permeability: Moderately slow or slow
- Available water capacity: Moderate

WmC Westmoreland-Upshur complex, 8 to 15 percent slopes.

- Slope: 8 to 15 percent
- Organic matter content: Moderately low
- Depth to restrictive feature: 45 inches to siltstone bedrock
- Natural drainage class: Moderately well drained
- Runoff class: Rapid
- Permeability: Moderate
- Available water capacity: Moderate

Management Activity Schedule

Years Suggested	Mgt Unit	Action Needed?	Acres	Recommendation
2022-2032	all	<input type="checkbox"/> Yes	107	Maintain property boundary markings
2022-2027	all	<input type="checkbox"/> Yes	107	Monitor growth (dbh: 50-90 trees)
2022-2032	1 & 2	<input type="checkbox"/> Yes	94	Light harvests every 4-5 years. Next harvest potential in 2026
2022-2024	2,3	<input type="checkbox"/> Yes	54	Grapevine control – no chemicals
2022-2032	all	<input type="checkbox"/> Yes	107	Girdling and non-chemical management of cull trees and invasives by forester Ed Romano.