FOREST MANAGEMENT PLAN

2017-2026

Blue Flag Meadow Property

Kenyon & Lewis Roads

Hampton, CT

Prepared for: Wolf Den Land Trust

Prepared By: Joshua Miller (CT Forester #1081)

August xx, 2017

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# Landowner, Property, and Plan Preparer Info

This is a forest management plan developed under current USDA-NRCS (Standard 106) guidelines.

Date Prepared:

Plan Time Frame: 2017-2026

Property Owner(s): Wolf Den Land Trust

Address: PO Box 404, Brooklyn, CT 06234

Telephone:

Email: sbroderick@charter.net

Property Address: Kenyon & Lewis Road, Hampton, CT (Map 3, Block 2, Lot 1)  
(if applicable)

Legal description or directions to site:

Gate access along north edge of property at Kenyon Road, best accessed from State Highway 97 in Hampton. Access to Lewis Road is wet and no bar ways are present.

Prepared by: Joshua Miller

Address: PO Box 132

Durham, CT 06422

Telephone: (860) 398-1776

Email: Joshua.Miller@ct.gov

Certifications: CT Forester #1081

Landowner

I have reviewed this plan with the Forester and believe the management recommendations will help me meet my goals and objectives for my property.

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Landowner Date

I certify that this Forest Management Plan meets the requirements of the USDA Environmental Quality Incentives (EQIP) Program and/or the Forest Management Plan Quality Criteria (106) for forest activity plans in Section III of the USDA NRCS Field Office Technical Guide.

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RCPP Forester Forester Number Date

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

NRCS Designated Conservationist Date

Management Activity Schedule and Tracking

(Conservation Plan or Record of Decisions)

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Stand | Unit (Acres, Feet, etc.) | NRCS Practice Code\* | Treatment Activity (Short Description) | Planned Date\*\* | Completed Date | Assistance Program Used? | Cost | Income |
| 1 | 9 acres | 314 | Control invasive plants | 2018, possible retreatment in 2019-20 |  |  |  |  |
| 1 | 9 acres | 647 | Create Early Successional Habitat (ESH) | 2018 |  |  |  |  |
| 6 | 8 acres | 314 | Control invasive plants | 2018, possible retreatment in 2019-20 |  |  |  |  |
| 6 | 8 acres | 314 | Brush hog fields | 2018, 2020 |  |  |  |  |

*\*NRCS Practice Code needed if practice will be submitted for a NRCS assistance program, otherwise leave blank.*

*\*\*For recommended practices that are not planned to be done in the foreseeable future enter*

*TBD in the Planned Date Column.*

# General Information

Landowner Assessment

Description of resources and level of interest from the landowner:

Summary of resource concerns:

Landowner’s goals for the property:

Landowners are very interested in wildlife habitat management, especially restoring early successional habitat for young forest species in appropriate areas. Landowners are willing to control invasives in treatment areas, but will need assistance for projects requiring heavy equipment.

* Non-native invasive plants present
* Lack of early successional habitat for American woodcock
* Enhance habitat for young forest species
* Promote a variety of forest types
* Discourage and eliminate exotic elements

General Property Information

Total Land Area: 92 acres

Total number of stands/mgmt units: 6

General description of property and surrounding areas:

The Blue Flag Meadow property was deeded to the Eastern Connecticut Forestland Owners Association parent of the Wolf Den Land Trust (WDLT) by Wendell and Alison Davis in 2006. This property is approximately 92 acres and displays a wide mosaic of habitat and structure, including: Mowed fields, shrub edge, second growth forest, a 25+ acre manmade pond, and 3+ acres of riparian meadows. The Blue Flag Meadow property is bounded by: Natchaug State Forest to the north, protected farmland to the south and southeast, pasture land to the west, and some small privately owned wooded areas in all directions. The northern and western portions of this property were utilized for pasturing and orchard crops as recently as the mid-20th Century (\*see 1934 aerial photo), much of this former agricultural land has grown up to shrub and forestlands.

2 streams flow into the property’s pond; one from the north and one from the west, with the outlet for the pond being a dam in its southeast corner. The highest elevation on this property is along the western boundary at approximately 650’ and the lowest elevational point is approximately 575’ located east of the pond’s outlet. The property is roughly bowl-shaped with the highest elevations being around the perimeter and the lowest elevations being in the center around the pond’s location.

There are some restrictions of land use as referenced in the deed by the Davis Family to the WDLT. One specific restriction being that timber harvesting will only be allowed on the property if it is deemed to improve wildlife habitat.

Soils information:

Upland soil types include: Charlton-Chatfield Complex; Woodbridge soils; Paxton and Montauk fine sandy loams. Wetland soil types include: Ridgebury, Leicester, and Whitman soils; Catden and Freetown soils

Management access:

This property is best accessed from the gate at Kenyon Road. Due to being surrounded by wetlands, access to the southern and western stands (mainly Stands 3 & 4) would prove difficult. There is no current established access on Lewis Road

Presence of threatened and endangered species:

Cultural importance:

Some interior stonewalls in the western portions of the field

Maps provided (6): Location/Topographical Map; 1934 Aerial Imagery Map; Soils Map; Stand Map; NDDB Map; Operations Map

# Stand 1: Existing Conditions

12 Acres

Stand Description:

Pole sized red maple trees compose the majority of the basal area of the trees within this non-contiguous stand. Growing amongst these pole sized trees are many legacy trees left over from past land uses, these trees consist mainly of white ash, oaks, and some apple trees. Spicebush composes the largest concentration of native understory plants. From referencing different aerial photographs over the 20th Century, it can be determined that portions of this stand were totally cleared for agricultural uses as recently as the 1960s. The soils of this stand are characteristically wet, making access to this stand difficult in most seasons when dry or frozen grounds are not present.

Forest Health Concerns:

Many non-native invasive plants are present in this stand, including: Japanese barberry, multi-flora rose, autumn olive, oriental bittersweet, winged euonymus, and glossy buckthorn. Emerald ash borer threatens the ash component within this stand.

Habitat and wildlife use:

Not currently suitable for early successional species (including American woodcock).

Recreational Opportunities:

A hiking trail intersects the eastern portion of this stand, with a foot bridge that crosses the stream to the east.

Silvicultural Potential:

Low potential for timber production is present in this stand. Much of the stems in this stand are over-crowded and are not of valuable timber species. Any harvest should be related to habitat benefits of creating early successional forests.

|  |  |  |  |
| --- | --- | --- | --- |
| Stand Inventory Data | | | |
| Forest type | Mixed northern hardwoods (mainly red maple) | Basal area (ft2) | 90 |
| Size class | Pole, small sawtimber | Trees per acre | 165 |
| Stocking level | Adequately Stocked | Volume per acre (bd ft) | 440 |
| Timber Quality | Poor | Mean stand DBH (inches) | 10.0 |

# Stand 1: Management Plan

Landowner Goals:

Create early successional forest to provide proper habitat for American woodcock

Recommended Silvicultural Prescription:

* Mechanical removal of all stems greater than 2” in diameter; leaving select legacy trees
* Do not include northwestern-most block of this stand in this harvest
* Buffer any cutting in this Stand approximately 50 feet from the stream along the eastern boundary

|  |  |
| --- | --- |
| Planned Activities Within Management Regime | |
| Year | Description of Activity |
| 1, 2, 3 | Brush Management (314-Control invasives through herbicide use) |
| 1 | Create Early Successional Habitat (647-Heavy Mechanical) |

# Stand 2: Existing Conditions

14 Acres

Stand Description:

Small sawtimber sized (12”-16” DBH) red maple, white ash, black birch compose the majority of the basal area within this stand. Oak (mainly black and scarlet oaks) are present to a lesser extent, along with scattered concentrations of big-tooth aspen. Native understory plants consist mainly of wetland indicator species, such as: spicebush, sweet pepper bush, and winterberry. Much of the white ash timber within this stand is healthy, valuable, and merchantable. Soils are rather wet in the majority of this stand and installing a landing would prove to be difficult along Lewis Road. This stand is bounded to the north by an adjacent property, to the east by Lewis Road, and to the west by Stand 3.

Forest Health Concerns:

Many non-native invasive plants are present in this stand, including: Japanese barberry, multi-flora rose, oriental bittersweet, and winged euonymus. Emerald ash borer threatens the ash component within this stand.

Habitat and wildlife use:

Not currently suitable for early successional species (including American woodcock)

Recreational Opportunities:

No hiking trails are currently located within this stand. A thick cover of Japanese barberry carpets in the understory of this stand, therefore no construction of trails is recommended.

Silvicultural Potential:

If possible (\*see deed of property), there is potential for timber production in this stand. Removal of white ash timber prior to the arrival of emerald ash borer would be recommended. There is potential to create nearly contiguous early successional habitat for American woodcock from Stand 1 to this Stand, which should be viewed as a possible practice during the next management regime.

|  |  |  |  |
| --- | --- | --- | --- |
| Stand Inventory Data | | | |
| Forest type | Mixed hardwoods | Basal area (ft2) | 137 |
| Size class | Small sawtimber | Trees per acre | 171 |
| Stocking level | Over stocked | Volume per acre (bd ft) | 6680 |
| Timber Quality | Average | Mean stand DBH (inches) | 12.1 |

# Stand 2: Management Plan

Landowner Goals:

Let grow until next management regime

Recommended Silvicultural Prescription:

No silvicultural activities are recommended in this management regime

# Stand 3: Existing Conditions

12 Acres

Stand Description:

Stand 3 is bounded by wetlands on all sides, including: wet forest stands, the Blue Flag Meadow Pond, and streams to the northwest and south (discounting the small section along Lewis Road, \*see Stand Map). Stand 3 is distinct from the rest of the forested Stands on the property in its high density of valuable sawtimber. Northern red oak is present in high densities in this stand, its basal area per acre being 43’2 and its mean DBH being 19.2” Other common sawtimber trees in this stand are hickory, white oak, black oak, and white ash.

Forest Health Concerns:

Many non-native invasive plants are present in this stand in lower densities than the surrounding stands, including: Japanese barberry, multi-flora rose, oriental bittersweet, and winged euonymus. Emerald ash borer threatens the ash component within this stand. Monitor tree health of oaks from gypsy moth defoliation.

Habitat and wildlife use:

Dead snags can be used as dens for wildlife, acorn masts of the oak trees present will be used by wildlife as an important food source.

Recreational Opportunities:

A hiking trail follows along the pond on the western edge of this stand, with foot bridges located both at the stream to the north and the pond outlet to the south.

Silvicultural Potential:

High potential for timber production is present in this stand. The landowners’ priorities recommend letting natural succession take place, allowing this stand to develop “old growth” characteristics.

|  |  |  |  |
| --- | --- | --- | --- |
| Stand Inventory Data | | | |
| Forest type | Oak, morthern hardwoods | Basal area (ft2) | 120 |
| Size class | Large sawtimber | Trees per acre | 122 |
| Stocking level | Fully stocked | Volume per acre (bd ft) | 8,560 |
| Timber Quality | High | Mean stand DBH (inches) | 13.4 |

# Stand 3: Management Plan

Landowner Goals:

Allow for natural succession to take place

Recommended Silvicultural Prescription:

No silvicultural activities are recommended

# Stand 4: Existing Conditions

14 Acres

Stand Description:

Stand 4 wraps around the south and western edge of the Blue Flag Meadow Pond; ending to the north at the invasive shrub/vine thicket and the outlet for the Pond on the east. The Airline Trail borders the most southern boundary of this stand. One stream intersects this Stand in its western portion, making access to the southern portion of this stand difficult. Black oak is the most dominant tree in this stand with moderate densities of hickory and white oak present. A significant amount of the largest black oaks in this stand have been damaged by various storms over the past ten years, leaving many hazards and snags. Gypsy moths have defoliated all of the oak trees in this stand in 2017, but all trees seem to have leaved out following defoliation.

Forest Health Concerns:

Many non-native invasive plants are present in this stand in high densities than the surrounding stands, including: Japanese barberry, multi-flora rose, oriental bittersweet, and winged euonymus. Emerald ash borer threatens the ash component within this stand. Monitor tree health of oaks from gypsy moth defoliation.

Habitat and wildlife use:

Dead snags can be used as dens for wildlife, acorn masts of the oak trees present will be used by wildlife as an important food source.

Recreational Opportunities:

The hiking trail which borders the pond is in this stand. A foot bridge crosses the stream in the western portion of the stand, along with the foot bridge that connects to Stand 4.

Silvicultural Potential:

Removing dead or dying large oaks could be a potential for this stand. The landowners’ priorities recommend letting natural succession take place, allowing this stand to develop “old growth” characteristics.

|  |  |  |  |
| --- | --- | --- | --- |
| Stand Inventory Data | | | |
| Forest type | Oak, northern hardwoods | Basal area (ft2) | 107 |
| Size class | Medium sawtimber | Trees per acre | 140 |
| Stocking level | Adequately stocked | Volume per acre (bd ft) | 6,165 |
| Timber Quality | Average | Mean stand DBH (inches) | 11.8 |

# Stand 4: Management Plan

Landowner Goals:

Allow for natural succession to take place

Recommended Silvicultural Prescription:

No silvicultural activities are recommended

# Stand 5: Existing Conditions

4 Acres

Stand Description:

Stand 5 is best described as the invasive shrub thicket which grew around unmanaged portions of the fields on the property. This stand has currently has low potential to revert to forest naturally due to an extremely high component of invasive species, including: Multi-flora rose, Japanese barberry, autumn olive, oriental bittersweet, winged euonymous, and glossy buckthorn.

Forest Health Concerns:

Many non-native invasive plants are present in this stand in high densities, including: Japanese barberry, multi-flora rose, oriental bittersweet, privet, glossy buckthorn, and winged euonymus.

Habitat and wildlife use:

The invasive shrub thicket that composes much of the area of this Stand currently presents possible habitat for certain songbird species of Greatest Conservation Need (GCN).

Recreational Opportunities:

A hiking trail intersects this stand along the grassland before reaching Stand 4 to the south.

# Stand 5: Management Plan

Landowner Goals:

Let stand grow

Recommended Silvicultural Prescription:

No silvicultural activities are recommended

# Stand 6: Existing Conditions

8 Acres

Stand Description:

8 acres of periodically mowed fields are located in the northern portion of this property. These fields are mowed on an annual basis. In 2008 some of this area was mowed with a forestry mower, which has expanded this stand since the last Forest Management Plan for this property.

Habitat and wildlife use:

This stand may be used by grassland birds of GCN for nesting and foraging. It is recommended that fields continue to be mowed on a biennial basis, with mowing only occurring after August 15 of the growing season.

Recreational Opportunities:

A hiking trail intersects this stand. Birding, specifically grassland birds, can be viewed within this grassland area during nesting seasons.

# Stand 6: Management Plan

Landowner Goals:

Keep grassland maintained

Recommended Prescription:

Mow fields on a biennial basis (years 1 and 3). Only mow fields after August 15th, to not disturb bird nesting seasons

|  |  |
| --- | --- |
| Planned Activities Within Management Regime | |
| Year | Description of Activity |
| 1, 2, 3 | Brush Management (314-Control invasives through herbicide use) |
| 1, 3 | Mow field (314-brush hog) |

# Summary Tables

Descriptions of Activities

-Y1-

|  |  |
| --- | --- |
| STAND | ACTIVITY |
| 1, 6 | Invasive control |
| 1 | Create early successional habitat |
| 6 | Mow field |

-Y2-

|  |  |
| --- | --- |
| STAND | ACTIVITY |
| 1, 6 | Follow up invasive control |

-Y3-

|  |  |
| --- | --- |
| STAND | ACTIVITY |
| 1, 6 | Follow up invasive control (if necessary) |
| 6 | Mow field |











