



Amherst Conservation Commission

Amherst Grasslands Habitat Management Plan

Revision 2018

Nota Bene: This Grasslands Habitat Management Plan is aligned with and supports the overarching Conservation Plan guiding the work of the Amherst Conservation Commission. This Grasslands Plan, along with other individual plans, provides more detail and guidance to the major habitat types that we manage in Amherst. There is a critical connectedness which we must be careful to observe.

Vision

Grassland habitats in Amherst may support around 70 species of wildlife. In New Hampshire, grasslands are largely man-made and require periodic management to be maintained. The vision of the Amherst Conservation Commission (ACC) is to maintain grasslands in Amherst as a vital component of the larger mosaic of wildlife habitats in our landscape.



Scope

This Plan applies to Amherst town properties containing native grassland, wet meadow/shrubland and peatland. Farmer-managed town hayfields are included. Farmers have their own NH state certifications and management practices, they are encouraged but not required to follow these grasslands management practices.

Purpose

This Plan prescribes management practices to sustain Amherst's grassland habitats, tailored for each property according to its type and the desired species composition and structure.

Introduction

The **Amherst Conservation Commission (ACC)** protects and manages the town's biodiversity and natural resources, and promotes the public use of natural open space for low-impact outdoor recreation that is consistent with conservation.

Grasslands are comprised of grasses, sedges, and wildflowers with little to no shrubs and trees. Pre-colonial grasslands in New Hampshire were probably only maintained by beaver and fires started by lightning and Native Americans. The numerous agricultural lands maintained by early European settlers provided ideal habitat for some wildlife species that needed grassland habitat. As these agricultural lands were abandoned, grassland dependent populations began to decline. Examples coming from the state endangered list include the eastern hognose snake, northern harrier, upland sandpiper and on the state threatened list include the grasshopper sparrow. Other species also benefit from these open grass fields such as wood turtles and numerous species of butterflies. Development and natural forest succession have reduced grassland habitat in the state. Most grasslands require maintenance such as mowing and possibly controlled burning to prevent them from reverting to shrublands or forests.

Reasons for Maintaining Grasslands

- Grasslands provide an important type of wildlife habitat within the matrix of different ecosystems in the landscape. They are home to wildlife species of conservation concern, including such birds as bobolinks, eastern meadow lark, grasshopper sparrow, and bluebirds. They also provide forage and shelter for a number of other more common wildlife species in Amherst, including turkey, small mammals (rodents, foxes, fishers), birds of prey (owls and hawks). Their relative abundance is diminishing in New Hampshire, as areas once in grasslands are either being developed or have reverted to forest.
- Grassland areas are also valuable for humans. They provide unobstructed views, scenic value, aesthetics, preservation of rural landscape as well as recreation and recharge spaces (sledding, kites, birdwatching, hiking, X-C skiing, nature study).

Habitats

Key habitat variables for wildlife include minimum grassland size, vegetation composition and structure. Management prescriptions for each ACC grassland property should be tailored to maintain the appropriate habitats for the species that ACC chooses to conserve. The following table is indicative of the desired property parameters in area and vegetation.

Table 1: Examples of grassland wildlife habitat preferences

| Species | Grassland size | Vegetation Composition | Vegetation Structure |
|------------------------|----------------|--------------------------------|---------------------------|
| Bobolink | 5+ acres | Upland grasses | Dense, taller than 3 feet |
| Eastern meadowlark | 15+ acres | Upland grasses and wildflowers | Dense, taller than 3 feet |
| Savannah sparrow | 20+ acres | Upland grasses | Mixture of heights |
| Grasshopper sparrow | 30+ acres | Upland grasses | Sparse, short |
| Northern harrier | 30+ acres | Upland and wetland grasses | Short (uplands) |
| New England Cottontail | 25+ acres | Upland thickets, shrub-scrub | Dense, taller than 3 feet |

Importance of Landscape

Wildlife species may require different habitats for different needs, such as food, shelter, breeding and rearing of young. As a result, wildlife species may move throughout different habitat types within a landscape. It is important to recognize that a single plot of grass is not the whole story; a mosaic of habitats within a landscape is important.

Types of Grasslands in Amherst

Amherst's town grasslands total over 250 acres with much more in private ownership (Illustration 1). They are generally dry upland, scrub-shrub, wet meadow or peatland types surrounded by forests. They may have a stream nearby and, in one case, lie atop a capped landfill.

- **Large Grasslands** – Recall that some wildlife species favor large areas of mixed types. The Amherst town-owned grassland areas that may be characterized as “large” grasslands of 25 acres or more are; the Great Meadow, Pond Parish Town Forest, Ponemah Bog, Forestview Cemetery, and the Hemlock Trail area being enlarged in Joe English. When considering town grasslands that abut private parcels then Beacon-Wells, Ackley, and Odell complexes comprise very large habitats. Large grasslands provide habitat for many particular species of grassland birds throughout the year. Bobolinks and eastern meadowlarks build nests, raise young, and forage in small and large grasslands during the summer months. However, large grasslands, if appropriately managed, can also provide habitat for rare grassland birds, such as upland sandpipers, grasshopper sparrows, and northern harriers. These birds will only nest in large contiguous grasslands that contain a grassland mosaic, including mowed areas and meadows of tall grass and wildflowers. These areas are also important for birds of prey, such as American kestrels, northern harriers, and red-tailed hawks, that

live in or near grasslands and rely on these habitats for hunting insects and small mammals. (Ref “Conserving Grassland Birds”, Audubon).

- **Small Grasslands** – Most of Amherst’s grasslands are characterized as “small”; under 25 acres. Their distribution is scattered throughout the town. These grasslands support fewer species, but can still be an important wildlife resource for certain needs.
- **Wet Meadow** – A wet meadow is a type of wetland with soils that are saturated for all or part of the year, occurring where water is at or near the surface most of the growing season. Shrubs are occasionally present, trees are never. Wet meadows attract a select type of species. In late summer, small mammals may visit wet meadows that have dried. However, the meadows are generally too wet to provide suitable habitat for small mammals. Deer may seek forbs (herbaceous flowering plants other than a grass) and palatable grasses. Waterfowl, especially mallard ducks, frequent streams flowing through wet meadows. Red-winged blackbirds occasionally nest in wet meadows with tall vegetation and with adequate water to discourage predators.
- **Peatlands** – Peatlands are wetland ecosystems that contain peat, a spongy, organic material formed by partially decayed wetland plants. Typically found in cool climates, peatlands are associated with acidic or stagnant water low in oxygen. The water in many peatlands is highly acidic and lacking in nutrients, creating growing conditions for a very distinct group of plants and associated fauna species. In Amherst, peatlands are primarily found in glacial outwash bowls.

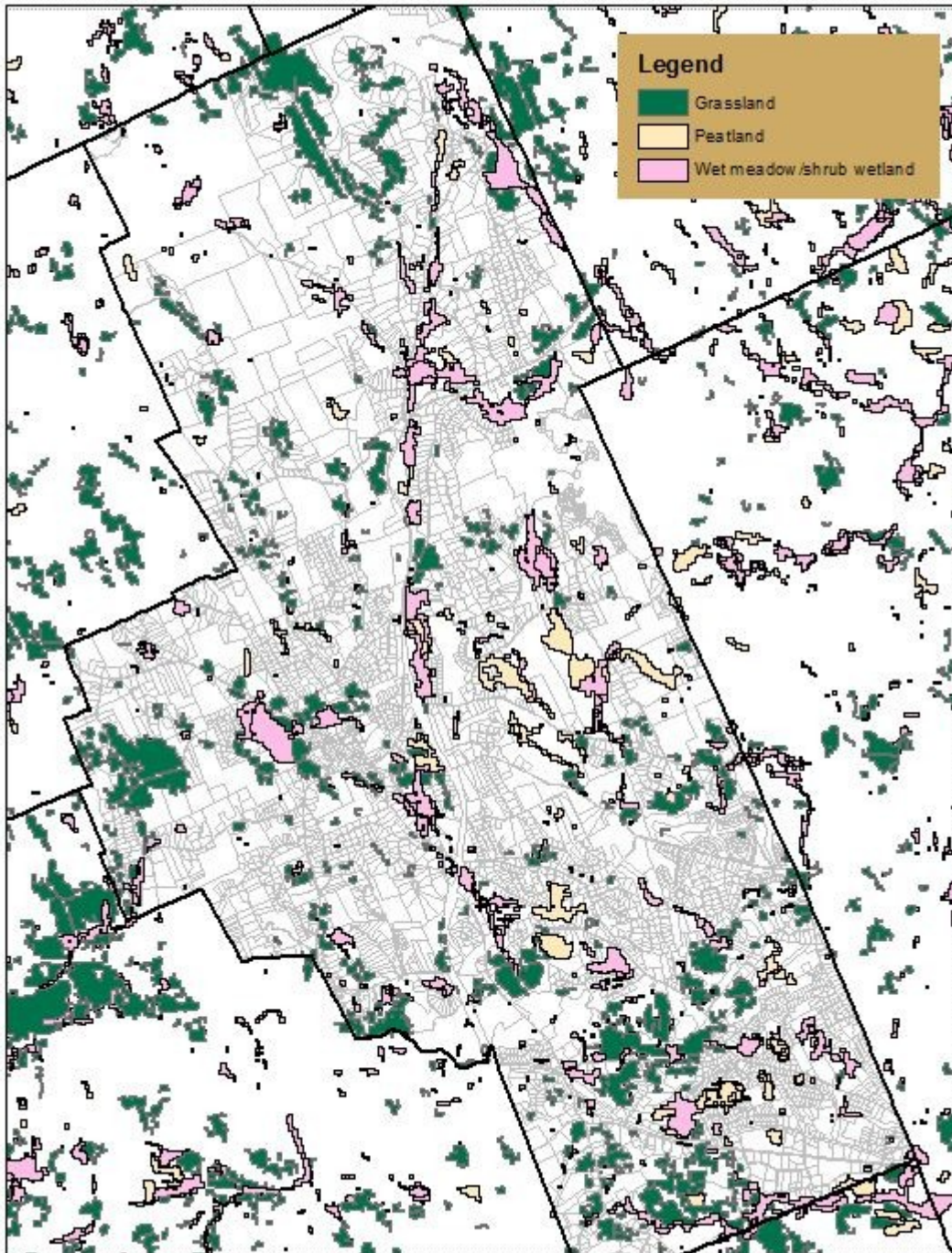


Illustration 1: Amherst Grasslands

Property Management Descriptions

The following pages are descriptive of individual properties and their approved management suggestions. Current scientific data, images and professional guidance are utilized as best practices to achieve desired outcomes.

Index:

- A. Pond Parish Town Forest
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- H. Forestview Cemetery
- I. Sky Meadow-Souhegan Valley District Landfill
- J. Grater Woods Meadow
- K. Ackley Parcel
- L. Odell Preserve
- M. Hemlock Trail Laurel Thicket
- N. Farmer-Managed Hayfields and Cornfields

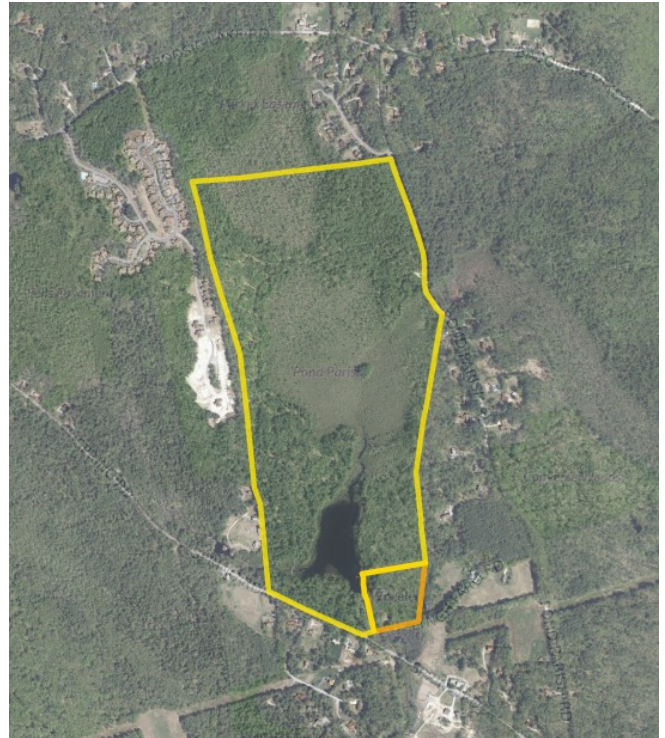
A. Pond Parish Town Forest (PPTF) - Wheeler

Map/Lot: 6-24, 6-23

Location: Intersection of Spring Road and Pond Parish Road

Size: 180 ac

Description: PPTF-Wheeler is mostly forest but contains a large wet beaver meadow fruitful for many bird and amphibian species. The water level varies by annual rainfall and whether beavers are present but seldom goes dry. This allows flora such as sedges to thrive.



See Appendix A-2 for potential species in wet meadows:

Suggested Actions:

- Trails will be routed around the periphery of the wet area.
- Girdle one or more well-spaced pine trees to become future snags for perching and nesting.
- Provide nesting spots in cavities and dense vegetation.
- Control and/or removal of invasive species and weeds, e.g., purple loosestrife and Phragmites.
- Place explanatory kiosks for public education in high traffic areas.
- Encourage service commitment volunteers to erect and maintain bird houses for (?).

Measurements/Results:

2017: Initial survey

B. Joppa Hill Farm

Map/Lot: 10-71 (partial)

Location: Amherst northeast corner, intersection of Horace Greeley Road and Joppa Hill road, adjacent to Bedford

Size: Overall 437 ac but grasslands area is 14 ac.

Description: A mosaic of three meadows in Amherst and one in Bedford (Bedford Land Trust) bordered by treelines and forest. A beaver pond forms a wet meadow on the southern edge. Cooperation with the BLT is encouraged to use all available grasslands.



See Appendix A-3 for potential species in this mixed grasslands/wet meadow habitat.

Suggested Actions:

- Mow at mixed one-to-three-year intervals chosen to maximize selected species preferences.
- Mow after August 15.
- Stone wall repair, drainage, bordering treeline and brush removal done as necessary.
- Trails will be routed around the periphery of the wet area and meadows.
- Girdle one or more well-spaced pine trees in the beaver pond to become future snags for perching and nesting.
- Provide nesting spots in cavities and dense vegetation.
- Control and/or removal of invasive species and weeds, e.g., bittersweet, autumn olive.
- Place explanatory kiosks for public education in high traffic areas.
- Encourage service commitment volunteers to erect and maintain bird houses.

Measurements/Results:

2017: Initial survey

C. Great Meadow

Map/Lot: 5-146, 5-147, 5-149, 5-150, 5-169, 5-152, 5-152-1, 5-153-1, 17-55-1

Location: Boston Post Road, across from Wilkins School

Size: 78 ac.

Description: A large hummocky wet meadow watered by both Caesar's and Beaver Brooks. The ACC maintains an observation boardwalk across from Wilkins School.

See Appendix A-2 for potential species in this wet meadow habitat.



Suggested Actions:

- Future trails will be routed around the periphery of the wet area.
- Girdle one or more well-spaced pine trees to become future snags for perching and nesting.
- Provide nesting spots in cavities and dense vegetation.
- Control and/or removal of invasive species and weeds, e.g., bittersweet, purple loosestrife and Phragmites.
- Place explanatory kiosks for public education in high traffic areas.
- Encourage service commitment volunteers to erect and maintain bird houses.

Measurements/Results:

2017: Initial survey

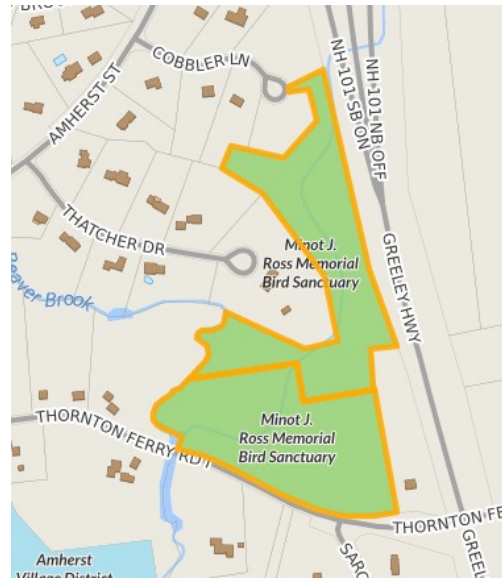
D. Minot J. Ross Memorial Bird Sanctuary

Map/Lot: 6-112-2, 6-115-4

Location: Intersection of Thornton Ferry I Road and Rt 101.

Size: 19 ac.

Description: Approx. 70% is a hummocky wet meadow watered by Beaver Brook and an unnamed outflow from the B&M wetland. The ACC maintains an observation point at the outflow.



See Appendix A-2 for potential species in this wet meadow habitat.

Suggested Actions:

- Future trails will be routed around the periphery of the wet area.
- Girdle one or more well-spaced pine trees to become future snags for perching and nesting.
- Provide nesting spots in cavities and dense vegetation.
- Control and/or removal of invasive species and weeds, e.g., autumn olive, purple loosestrife and Phragmites.
- Place explanatory kiosks for public education in high traffic areas.
- Encourage service commitment volunteers to erect and maintain bird houses.

Measurements/Results:

2017: Initial survey

E. Ponemah Bog Wildlife Sanctuary

Map/Lot: 2-87, 2-87-2

Location: Between Stearns Road and Rt 101.

Size: 73 ac.

Description: This peatlands fen is a unique habitat with no outflow. It is managed by the Audubon Society. Their observations are to be included in ACC reports.

See Appendix A-4 for potential species in this peatlands habitat.



Audubon prescribes the suggested actions, measurements and results.

F. Beacon-Wells

Map/Lot: 4-24-35, 4-35, (4-76)
Location: North (behind) of Fairway Drive off Boston Post Road.
Size: 9.5 town-managed acres, 60+ private acres
Description: This wet meadow is composed of ACC-managed Beacon & Wells lots, a US Treasury-owned lot (4-76) and surrounding private lots. The total wet area is approximately 70 acres, making it the largest wet meadow in Amherst.



See Appendix A-2 for potential species in this wet meadow habitat.

Suggested Actions:

- Future trails will be routed around the periphery of the wet area.
- Girdle one or more well-spaced pine trees to become future snags for perching and nesting.
- Provide nesting spots in cavities and dense vegetation.
- Control and/or removal of invasive species and weeds, e.g., purple loosestrife and Phragmites.
- Place explanatory kiosks for public education in high traffic areas.
- Encourage service commitment volunteers to erect and maintain bird houses.
- This area has a very large potential for fostering partnerships with abutting private landowners in management actions.

Measurements/Results:
2017: Initial survey

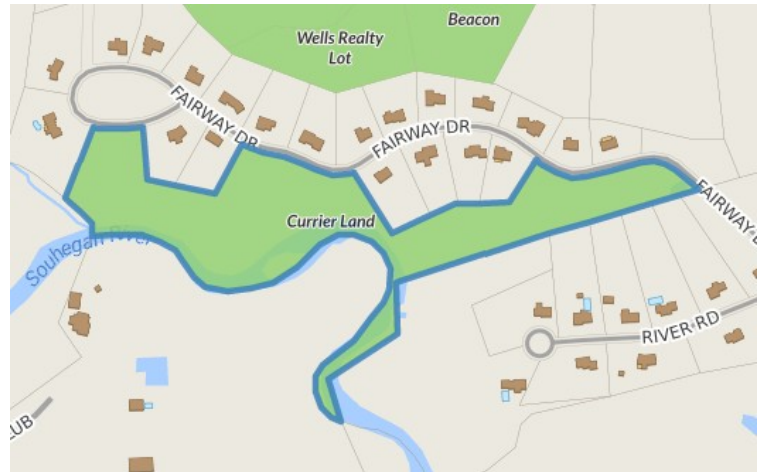
G. Currier Land

Map/Lot: 4-34-23

Location: South (behind) of Fairway Drive off Boston Post Road.

Size: 14ac.

Description: The grassland meadow comprises the west half of the parcel following Beaver Brook and the Souhegan River with surrounding forest. This varied habitat is useful to all species at different stages in their development.



See Appendix A-1 for potential species in this grasslands habitat.

Suggested Actions:

- Mow at mixed one-to-three-year intervals chosen to maximize selected species preferences.
- Mow after August 15.
- Stone wall repair, drainage, bordering treeline and brush removal done as necessary.
- Trails will be routed around the periphery of the wet area and meadows.
- Girdle one or more well-spaced pine trees along the river to become future snags for perching and nesting.
- Provide nesting spots in cavities and dense vegetation.
- Control and/or removal of invasive species and weeds, e.g., bittersweet, autumn olive.
- Place explanatory kiosks for public education in high traffic areas.
- Encourage service commitment volunteers to erect and maintain bird houses.

Measurements/Results:

2017: Initial survey

H. Forestview Cemetery

Map/Lot: 4-25

Location: South (behind) of Fairway Drive off Boston Post Road.

Size: 48 ac.

Description: The grassland meadow is in the rear (east) half of the parcel. It has been known to harbor Grasshopper Sparrows. Owned and managed by the Amherst Cemetery Trustees.

The adjoining Currier, Wells-Beacon, and surrounding private lots make a large, varied habitat complex.



See Appendix A-1 for potential species in this grasslands habitat.

Suggested Actions:

- Mow at mixed one-to-three-year intervals chosen to maximize selected species preferences.
- Mow after August 15.
- Stone wall repair, drainage, bordering treeline and brush removal done as necessary.
- Trails will be routed around the periphery of the wet area and meadows.
- Girdle one or more well-spaced pine trees to become future snags for perching and nesting.
- Provide nesting spots in cavities and dense vegetation.
- Control and/or removal of invasive species and weeds, e.g., bittersweet, autumn olive.
- Place explanatory kiosks for public education in high traffic areas.
- Encourage service commitment volunteers to erect and maintain bird houses.

Measurements/Results:

2017: Initial survey

I. Sky Meadow-Souhegan Valley District Landfill

Map/Lot: 8-9, 8-9-1
Location: Between Austin Road and Rt 101.
Size: 15 ac.
Description: The grassland meadow comprises the west half of 8-9 and a few acres of 8-9-1 with a treeline between grass areas.



See Appendix A-1 for potential species in this grasslands habitat.

Suggested Actions:

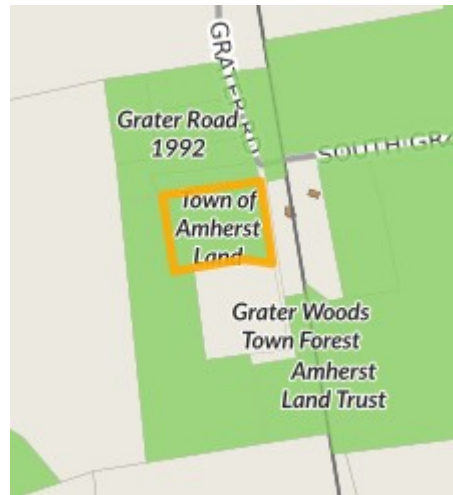
- Mow at mixed one-to-three-year intervals chosen to maximize selected species preferences.
- Mow after August 15.
- Stone wall repair, drainage, bordering treeline and brush removal done as necessary.
- Trails will be routed around the periphery of the wet area and meadows.
- Girdle one or more well-spaced pine trees to become future snags for perching and nesting.
- Provide nesting spots in cavities and dense vegetation.
- Control and/or removal of invasive species and weeds, e.g., bittersweet, autumn olive.
- Place explanatory kiosks for public education in high traffic areas.
- Encourage service commitment volunteers to erect and maintain bird houses.

Measurements/Results:

2017: Initial survey

J. Grater Woods Meadow

Map/Lot: 6-20-3
Location: End of Grater Road.
Size: 4 ac.
Description: A small grassland meadow.



See Appendix A-1 for potential species in this grasslands habitat.

Suggested Actions:

- Mow at mixed one-to-three-year intervals chosen to maximize selected species preferences.
- Mow after August 15.
- Stone wall repair, drainage, bordering treeline and brush removal done as necessary.
- Trails will be routed around the periphery of the meadow.
- Girdle one or more well-spaced pine trees to become future snags for perching and nesting.
- Provide nesting spots in cavities and dense vegetation.
- Control and/or removal of of invasive species and weeds, e.g., bittersweet, autumn olive.
- Place explanatory kiosks for public education in high traffic areas.
- Encourage service commitment volunteers to erect and maintain bird houses.

Measurements/Results:

2017: Initial survey

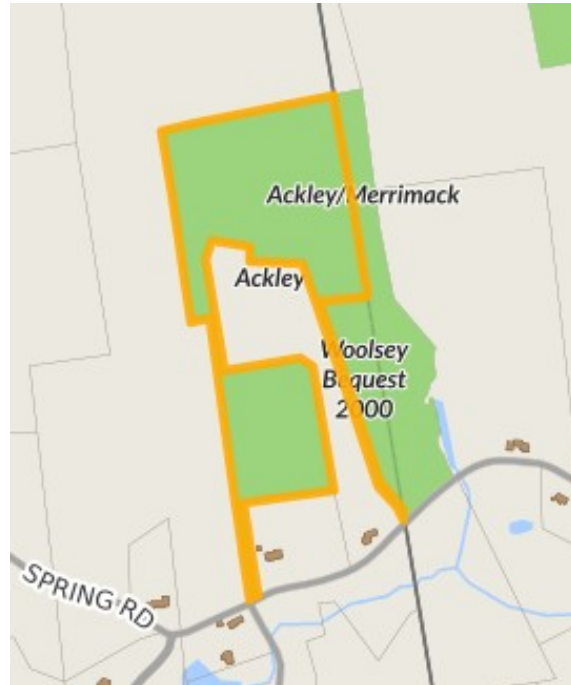
K. Ackley Parcel

Map/Lot: 4-157-1

Location: Spring Road at the
Amherst-Merrimack border.

Size: 24 ac.

Description: A large grassland
meadow in the midst of private
hayfields.



See Appendix A-1 for potential species in
this grasslands habitat.

Suggested Actions:

- Mow at mixed one-to-three-year intervals chosen to maximize selected species preferences.
- Mow after August 15.
- Stone wall repair, drainage, bordering treeline and brush removal done as necessary.
- Trails will be routed around the periphery of the meadow.
- Girdle one or more well-spaced pine trees to become future snags for perching and nesting.
- Provide nesting spots in cavities and dense vegetation.
- Control and/or removal of invasive species and weeds, e.g., bittersweet, autumn olive.
- Place explanatory kiosks for public education in high traffic areas.
- Encourage service commitment volunteers to erect and maintain bird houses.

Measurements/Results:

2017: Initial survey

L. Odell Preserve

Map/Lot: 8-17

Location: Along Horace Greeley Road immediately after the intersection with Rt 101.

Size: 18 ac.

Description: A large wet meadow in the midst of private wet meadows. Noted as in Highest Ranked Habitat in NH (purple color code).

Watered by Joe English Brook and the unnamed outflow from Damon Pond.



See Appendix A-2 for potential species in this wet meadow habitat.

Suggested Actions:

- Future trails will be routed around the periphery of the wet area.
- Girdle one or more well-spaced pine trees to become future snags for perching and nesting.
- Provide nesting spots in cavities and dense vegetation.
- Control and/or removal of invasive species and weeds, e.g., purple loosestrife and Phragmites.
- Place explanatory kiosks for public education in high traffic areas.
- Encourage service commitment volunteers to erect and maintain bird houses.
- This area has a very large potential for fostering partnerships with abutting private landowners in management actions.



Measurements/Results:

2017: Initial survey

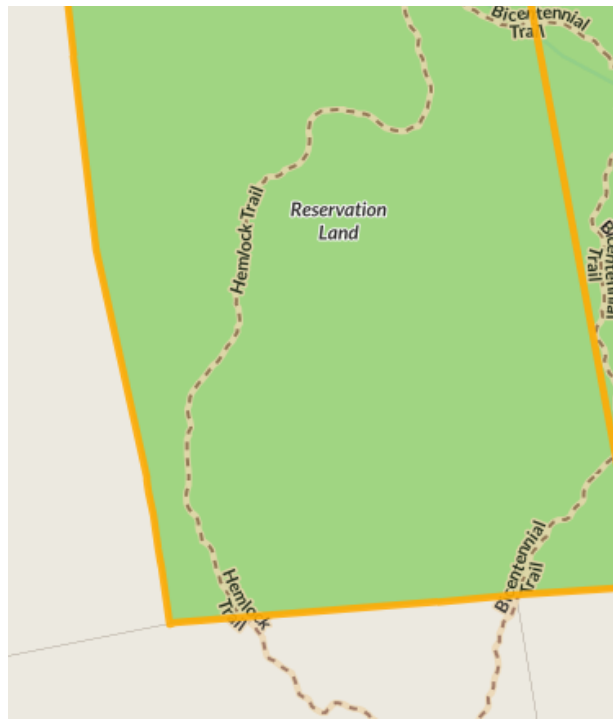
M. Hemlock Trail Laurel Thicket

Map/Lot: 10-6

Location: In southwest corner of the Joe English Reservation.

Size: Varies.

Description: See photo. The Hemlock Trail was timber harvested in 2017-18 due to hemlock tree kill by borers, scale and fungus. The harvest uncovered an extensive mountain laurel thicket which, when allowed to flourish, is prime habitat for small mammals including the endangered New England Cottontail rabbit. The ACC has partnered with UNH wildlife experts and County Foresters to manage this habitat for the long term. Specific management actions below.



Management Actions:

- Maintain open canopy to encourage laurel growth. Expect thick growth in 3-5 years (2020-2023).
- Shrubs and early saplings will grow during this time and expand the desired habitat.
- The current expert recommendation is to harvest more hemlocks and other trees in an adjacent area a few years before the growth in the original area shades out the laurel. A "moving habitat" concept. Animals do not stay in one location over generations.

- Predators: Consider providing perches and nesting places for raptors.

N. Farmer-Managed Hayfields and Cornfields

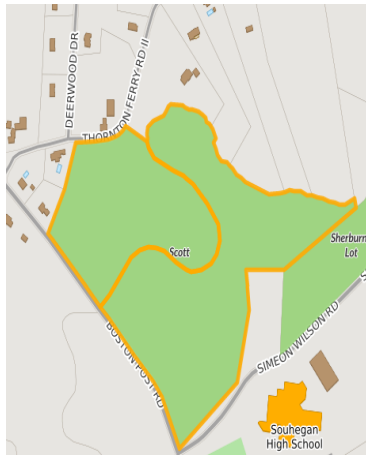
Included for reference only.



Lower Lindabury
5-109
15 ac.
On Christian Hill Rd.



Bragdon Farm
8-54-1, 8-56
30 ac.
On Rt 101



Scott
4-48, 2-140
40 ac.
On Boston Post Rd.

Bertha Rodgers
5-15
10 ac.
Green Rd. and Wilkins Rd



Management Prescriptions

Prior to 2017, ACC management of grasslands involved annual mowing early in the fall after nesting season, mostly to keep the fields open from reverting to forest. Numerous projects performed by commissioners and volunteers removed encroaching trees and brush, including invasive species. The management objective was to enhance the rural character of the town.

In 2017, the ACC determined to use the NH Wildlife Action Plan as a guide to enhancing our grassland habitats to encourage better habitat conservation for species in decline. This includes characterizing the current flora and fauna composition and structure in our grasslands, setting targets for composition and structure we would like to maintain in the future, developing management specifications, and establishing a cadre of birdwatchers for measuring our effectiveness. The NHWAP is also the foundation for valuing open space for acquisition and enforcement as established in the Amherst Conservation Plan. Adding grassland habitats to our management portfolio will be guided by that Plan.

ACC will integrate its grasslands management with its forest management plan. Examples of integrated management prescriptions include feathering the borders of adjacent forests to minimize distinct edges, reducing or eliminating hedgerows, and maximizing contiguity of grassland habitats.

The extensive private grasslands in Amherst offer a large opportunity for partnership and public education. Where private grasslands abut town properties arrangements may be made with a formal agreement between the ACC and the landowner similar to the Trail Agreement. The agreement should be similar to the Property Descriptions in Appendix B, and include preferred management actions tailored to the expected species. The landowner should provide the execution with ACC oversight and advice. A clause acknowledging the right of public access per New Hampshire law should be included and permission to allow birdwatchers on private property if the property is posted. Programs, tutorials, presentations, outings and other educational activities are encouraged in ACC public outreach.

Another few hundred acres of scrub-shrub grasslands are found in the often overlooked power line rights-of-way. The land under the power lines, managed by Eversource and the federal government are very complimentary to the goals of this Plan, especially for browsing mammals and raptors, and provided at no expense to the town.

Suggested Conservation Actions

After due consideration of species requirements, level of effort and funding, a specification for each property will be developed from this list. Results of what is accomplished over time will be recorded and assessed.

- Mow at mixed one-to-three-year intervals chosen to maximize selected species preferences.
- Mow large grasslands in rotational blocks.
- Mow after August 15.
- Stone wall repair, drainage, tree and brush removal done as necessary.
- Close coordination with the Amherst Forest Management Plan to provide methods such as “feathering” the treeline around a grassland to add irregularly shaped edge habitat.
- Trails will preferably be routed around the periphery of a field.
- Girdle one or more well-spaced pine trees to become future snags for perching and nesting.
- Provide nesting spots in cavities and dense vegetation.
- Leave (or create) leaf litter and brushy areas where birds can hide.
- Control and/or remove invasive species and weeds, e.g., bittersweet, autumn olive and knotweed.
- Take soil samples every four years – minimal amendments will be applied as necessary to maintain soil fertility suitable for native grasses.
- Spread seed as necessary.
- Place explanatory kiosks for public education in high traffic areas (such as at Great Meadow and below the Landfill Cap – Sky Meadow complex).
- Encourage service commitment volunteers to erect and maintain bird houses for bluebirds, wrens, tree swallows, and chickadees.
- Craft an outreach strategy that depends on the desired species’ requirements. Approach the land owner and set a unified objective. For instance; coordinate with Bedford Land Trust on a mowing mosaic for the northern Joppa Hill Farm fields.
- Limit forest growth from shrub lands (e.g., in Mountain Laurel thickets).
- In wet meadows, maintain appropriate water levels that avoid both flooding and drawdowns during the May – July nesting season if water levels can be maintained. Monitor beaver impoundments. Removal of past modifications in wet areas can be funded by a NH DES grant.
- Plant native bushes, shrubs and trees with berries or mast in natural or created shrubby habitat to benefit rabbits and birds.
- Prescribed burns may enhance habitat important to rare and/or endangered species, especially the Karner blue butterfly.

Assessing Results

For the initial years of this plan we will follow the approved management practices, expecting the habitats to improve and attract new populations of species. The ACC may sponsor wildlife

walks to educate the public on the importance of these environments. Partnering with associated organizations such as Audubon Society of New Hampshire, UNH Co-Op County Extension and UNH Wildlife professors to obtain more focused scientific observations is encouraged.

In future, the key to good management is properly gathering data, having a competent set of metrics that measure the critical environmental items and a method to determine progress. For grasslands habitat the data gathering process is holding regular species counts in a professional way. Progress is evidenced by increasing populations of endangered species and an ecologically sound predator/prey balance. Grasslands stewards are recommended for habitat longevity and continuity of data.

Resources

Partnering with New Hampshire and Audubon programs:

Annual Backyard Winter Bird Survey:

<http://nhbirdrecords.org/bird-conservation/bwbs/backyard-winter-bird-survey/>

NH eBird: <http://ebird.org/content/nh/>

NH DES track and report rabbit sightings: <https://nhrabbitreports.org/>

Swallow Colony Registry volunteer: <http://nhbirdrecords.org/bird-conservation/swallow-core/>

See also UNH featured publications: <https://extension.unh.edu/resources/>

NH DES hunting surveys: TBD but <http://www.wildlife.state.nh.us/hunting/>

Reference material:

NH Native Plants with Wildlife Value.pdf (source)

Wildlife Habitat Council Habitat – Grasslands.pdf (source)

Questions and comments may be emailed to acc@amherstnh.gov

Investments

The Town of Amherst's budget process requires a financial analysis of the data in this Plan for the current and following year budget with a summary three-to-five out-years forecast.

Tasks and Costs

Grasslands are *managed* habitat. Unmanaged grasslands in New Hampshire soon revert to succession growth culminating in a mature forest where grasslands occur only by natural disturbances. Management involves human tasks and resources. Typical tasks are area mowing, trail mowing, adding nutrients, soil sampling, margin clearing, spot treatment of invasives, explanatory kiosks, brush piles, erecting birdhouses, etc. Resources generally refer to paid mowers, wood cutters, certified invasives mitigation and more.

For each managed grassland, the agreed-upon tasks will be enumerated, the costs calculated and totals gotten for each appropriate line item in the town budget. Total costs will be forecasted for the out-years considering the asymmetrical mowing schedule and need for infrastructure repair, replacement and new items.

Appendix A: Species Lists

These lists are taken from the NH Fish and Game Habitats website.

Flora

Non-native grasses:

- Timothy
- Kentucky Bluegrass
- Orchard Grass
- Perennial Ryegrass

Native grasses:

- Big Bluestem
- Little Bluestem

Native wildflowers:

- Goldenrod
- Aster

Fauna

These tables describe the species expected to be found in Amherst by habitats.

A-1. Grasslands

Potential Species - by Common

| Name | Range Type | Taxonomy |
|-----------------------------------|-------------------|-----------------------------|
| Eastern Box Turtle | Localized | Amphibians and Reptiles |
| Fowler's Toad | Localized | Amphibians and Reptiles |
| Northern Leopard Frog | Localized | Amphibians and Reptiles |
| Blue-Spotted/Jefferson Salamander | Statewide | Amphibians and Reptiles |
| Wood Turtle | Statewide | Amphibians and Reptiles |
| Blanding's Turtle | Throughout | Amphibians and Reptiles |
| Eastern Hog-nosed Snake | Throughout | Amphibians and Reptiles |
| Eastern Ribbonsnake | Throughout | Amphibians and Reptiles |
| Northern Black Racer | Throughout | Amphibians and Reptiles |
| Smooth Greensnake | Throughout | Amphibians and Reptiles |
| Spotted Turtle | Throughout | Amphibians and Reptiles |
| American Kestrel | Localized | Birds |
| American Black Duck | Statewide | Birds |
| American Woodcock | Statewide | Birds |
| Black-billed Cuckoo | Statewide | Birds |
| Bobolink | Statewide | Birds |
| Brown Thrasher | Statewide | Birds |
| Eastern Towhee | Statewide | Birds |
| Field Sparrow | Statewide | Birds |
| Ruffed Grouse | Statewide | Birds |
| Wood Thrush | Statewide | Birds |
| American Kestrel | Throughout | Birds |
| Blue-winged Warbler | Throughout | Birds |
| Eastern Meadowlark | Throughout | Birds |
| Eastern Whip-poor-will | Throughout | Birds |
| Prairie Warbler | Throughout | Birds |
| Bank Swallow | Town | Birds |
| Grasshopper Sparrow | Town | Birds |
| Pied-billed Grebe | Town | Birds |
| Vesper Sparrow | Town | Birds |
| American Bumble Bee | Statewide | Bumble Bees |
| Rusty-patched Bumble Bee | Statewide | Bumble Bees |
| Yellow Bumble Bee | Statewide | Bumble Bees |
| Yellowbanded Bumble Bee | Statewide | Bumble Bees |
| Monarch | Statewide | Butterflies and Moths |
| Pine Barrens Bluet | Town | Dragonflies and Damselflies |
| Ringed Boghaunter | Town | Dragonflies and Damselflies |
| New England Cottontail | Town | Mammals |

A-2. Wet Meadow

| Potential Species - by Common Name | Range Type | Taxonomy |
|------------------------------------|------------|-------------------------|
| Eastern Box Turtle | Localized | Amphibians and Reptiles |
| Fowler's Toad | Localized | Amphibians and Reptiles |
| Northern Leopard Frog | Localized | Amphibians and Reptiles |
| Blue-Spotted/Jefferson Salamander | Statewide | Amphibians and Reptiles |
| Blanding's Turtle | Throughout | Amphibians and Reptiles |
| Eastern Hog-nosed Snake | Throughout | Amphibians and Reptiles |
| Eastern Ribbonsnake | Throughout | Amphibians and Reptiles |
| Smooth Greensnake | Throughout | Amphibians and Reptiles |
| Spotted Turtle | Throughout | Amphibians and Reptiles |
| American Black Duck | Statewide | Birds |
| American Woodcock | Statewide | Birds |
| Ruffed Grouse | Statewide | Birds |
| Bank Swallow | Town | Birds |
| Pied-billed Grebe | Town | Birds |
| | | Dragonflies and |
| Ringed Boghaunter | Town | Damselflies |

A-3. Mixed Grasslands and Wet Meadow

| Potential Species - by Common Name | Range Type | Taxonomy |
|------------------------------------|------------|-------------------------|
| Eastern Box Turtle | Localized | Amphibians and Reptiles |
| Northern Leopard Frog | Localized | Amphibians and Reptiles |
| Blue-Spotted/Jefferson Salamander | Statewide | Amphibians and Reptiles |
| Wood Turtle | Statewide | Amphibians and Reptiles |
| Blanding's Turtle | Throughout | Amphibians and Reptiles |
| Eastern Hog-nosed Snake | Throughout | Amphibians and Reptiles |
| Northern Black Racer | Throughout | Amphibians and Reptiles |
| Smooth Greensnake | Throughout | Amphibians and Reptiles |
| Spotted Turtle | Throughout | Amphibians and Reptiles |
| American Kestrel | Localized | Birds |
| American Black Duck | Statewide | Birds |
| American Woodcock | Statewide | Birds |
| Bobolink | Statewide | Birds |
| Ruffed Grouse | Statewide | Birds |
| American Kestrel | Throughout | Birds |
| Eastern Meadowlark | Throughout | Birds |
| Bank Swallow | Town | Birds |
| Grasshopper Sparrow | Town | Birds |
| Pied-billed Grebe | Town | Birds |
| Vesper Sparrow | Town | Birds |

| | | |
|--------------------------|-----------|-----------------------------|
| American Bumble Bee | Statewide | Bumble Bees |
| Rusty-patched Bumble Bee | Statewide | Bumble Bees |
| Yellow Bumble Bee | Statewide | Bumble Bees |
| Yellowbanded Bumble Bee | Statewide | Bumble Bees |
| Monarch | Statewide | Butterflies and Moths |
| Ringed Boghaunter | Town | Dragonflies and Damselflies |

A-4. Peatlands

Potential Species - by Common Name

| Potential Species - by Common Name | Range Type | Taxonomy |
|---|-------------------|-----------------------------|
| Blue-Spotted/Jefferson Salamander | Statewide | Amphibians and Reptiles |
| Blanding's Turtle | Throughout | Amphibians and Reptiles |
| Eastern Ribbonsnake | Throughout | Amphibians and Reptiles |
| Smooth Greensnake | Throughout | Amphibians and Reptiles |
| Spotted Turtle | Throughout | Amphibians and Reptiles |
| American Black Duck | Statewide | Birds |
| Pied-billed Grebe | Town | Birds |
| Pine Barrens Bluet | Town | Dragonflies and Damselflies |
| Ringed Boghaunter | Town | Dragonflies and Damselflies |