

BASELINE DOCUMENTATION REPORT

██████████ Wildlife Corridor

██████████ Property Fee Acquisition

Amherst, Massachusetts

February 2010



Prepared by:

Jennifer Holton

Streamscape Environmental

31 Allen Court • Keene, NH 03431

Prepared under contract to:

Town of Amherst

Author's Signature:

Date: _____

Table of Contents

Affidavit of Documentation Preparer	2
Acknowledgement of Condition Statement	3
Background Information	4
PROPERTY OWNERSHIP	4
LOCATION OF PROPERTY	4
CONSERVATION OBJECTIVES	4
PROPERTY DESCRIPTION	4
References	11
Baseline Aerial Photograph.....	12
Baseline Topographic Map.....	13
Protected Open Space Map.....	14
Water Resources Map.....	15
Priority Habitats Map.....	16
Annotated Survey Plan with Current Conditions Photopoints.....	17
Baseline Photographs.....	18

Affidavit of Documentation Preparer

I, Jennifer Holton, Principal Ecologist for Streamscape Environmental, prepared this *Baseline Documentation Report* for the [REDACTED] Property Fee Acquisition on [REDACTED] Road in Amherst, Hampshire County, Massachusetts.

Having reviewed the property survey, maps and LAND Grant Program Application document, I visited the [REDACTED] Property Fee Acquisition on February 22, 2010 and took documenting photographs at key sites. I then prepared a narrative and maps (in collaboration with the Town of Amherst) to represent the [REDACTED] Property Fee Acquisition's current condition. I undertook these activities to document the site's current condition in relation to the conservation purposes for which the Town of Amherst purchased this parcel.

This report consists of 24 pages, including the table of contents, this *Affidavit of Documentation Preparer*, the *Acknowledgement of Condition Statement*, narrative description, six maps, and 20 photographs. A copy of this report is also being provided to Grantors, [REDACTED] and [REDACTED]. The original report is on file with the Town of Amherst, Massachusetts.

Jennifer Holton
Principal Ecologist
Streamscape Environmental

Date

Witness

Acknowledgement of Condition Statement

██████████ **Wildlife Corridor**

██████████ **Property Fee Acquisition**

Signature Page

The Grantor and the Grantee hereby certify that this Baseline Documentation Report, together with its attachments, is an accurate representation of the property being acquired by the Town of Amherst for conservation purposes (hereinafter referred to as the “Premises”), at the time the transfer was granted. This Baseline Documentation Report contains the following: Cover Page, Table of Contents, Affidavit of Documentation Preparer, Acknowledgement of Condition Statement, Background Information, Aerial Photo, USGS Topographic Map, Protected Open Space Map, Water Resources Map, Priority Habitats Map, Photo Point Map, and labeled Photographs. The Grantor further certifies that to the best of the Grantor’s knowledge, there are no structures or improvements on the Premises other than as described in this Baseline Documentation Report.

Grantor, ██████████

Date

Grantor, ██████████

Date

Grantee, for the Town of Amherst:
██████████, Director
Conservation and Development

Date

Background Information

PROPERTY OWNERSHIP

Grantor Name and Address:

[REDACTED]
[REDACTED]

Amherst, Massachusetts 01002

Grantee Name and Address:

Town of Amherst
4 Boltwood Avenue
Amherst, Massachusetts 01002

LOCATION OF PROPERTY

Road(s): [REDACTED]

Municipality: Amherst

County: Hampshire

State: Massachusetts

Plat/Lot Information: [REDACTED], Hampshire County Registry of Deeds

Assessor's Sheet Number: [REDACTED]

CONSERVATION OBJECTIVES

The [REDACTED] Property Fee Acquisition is being acquired in fee by the Town of Amherst from [REDACTED] for conservation purposes and wildlife habitat. The preservation of this tract of predominately open field (hereinafter referred to as the "Premises") serves the following objectives: 1) preserving a natural corridor between conservation lands to the north and south of [REDACTED] Road, 2) creating a larger core of Town owned land, 3) preserving an important scenic viewshed to the Mount Holyoke Range, 4) increasing trail network opportunities, 5) protecting critical wildlife habitat and biodiversity, and 6) protecting valuable water resources. These conservation objectives are in accordance with the recommendations and community goals set forth in the Town of Amherst's Open Space and Recreation Plan.

PROPERTY DESCRIPTION

Land Acreage: 8.04 acres ±

Current Land Uses: At this time the Premises is owned by [REDACTED] and exists in an undeveloped state. The Premises is primarily composed of open hay field and scrub-shrub wetland and is bounded on the eastern and southern edges by mature mixed forest. The Premises' corners, having recently been surveyed, are clearly marked with iron pins, wooden stakes and flagging.

Proposed Future Uses: The Town of Amherst is purchasing this parcel in order to assure that the Premises will be maintained in its current predominantly natural, scenic and undeveloped condition in perpetuity and to prevent any use or change that would materially impair or interfere with the conservation and preservation values of the Premises and the Town’s drinking water supplies.

Conservation Values: The Premises is located in Amherst, Massachusetts, on [REDACTED] between [REDACTED]. The Premises is located just south of [REDACTED] with approximately 605 feet of frontage along this two-lane arterial road. The 5+ acres of open field that dominate the Premises provide rural vistas from [REDACTED], including views of the Mt. Holyoke Range and surrounding rural landscapes. The open field, along with surrounding communities of mixed forest, shrub swamp, and edge habitat provide favorable conditions for a variety of plant and wildlife species.

The Premises is part of an extensive complex of protected conservation lands, which create a significant wildlife corridor through the Town of Amherst that is composed of a mosaic of town-owned conservation areas, Conservation Restrictions, Agricultural Preservation Restrictions, and Subdivision Open Space (see “Protected Open Space” map). The Premises is bounded in all directions by conservation lands: to the north by [REDACTED] Road and the Slobody Acquisition, on the east and south by Lawrence Swamp, and on the west by the [REDACTED] Property Conservation Restriction.

More than 1,200 acres of protected open space and conservation lands exist within one mile of the Premises, including the following:

Tract Name	Type of Protection	Protected by	Acres
Amherst Cemetery	Town Land	Town of Amherst	3.7
Amherst Woods Property Owners Association	Subdivision Open Space		27.4
Atkins Flats Conservation Area	Town Conservation Area	Town of Amherst Conservation Commission	55
Baby Carriage Conservation Area	Town Conservation Area	Town of Amherst Conservation Commission	1.2
Brickyard Conservation Area	Town Conservation Area	Town of Amherst Conservation Commission	90
Farm Hills Property Owners	Subdivision Open Space		11.8
Gralenski Farm	Town Conservation Area	Town of Amherst Conservation Commission	6.2
Green Meadow Association	Subdivision Open Space		4
Hoffman Property	Conservation Restriction	Town of Amherst Conservation Commission	19.6

Hop Brook Conservation Area	Town Conservation Area	Town of Amherst Conservation Commission	4.55
Johnson Property	Conservation Restriction	Town of Amherst Conservation Commission & The Kestrel Trust	14.5
Lawrence Swamp	Town Conservation Area	Town of Amherst Conservation Commission	~600
Longley Swamp	Town Conservation Area	Town of Amherst Conservation Commission	1.9
Mt. Castor Conservation Area	Town Conservation Area	Town of Amherst Conservation Commission	13.7
Mt. Pollux Conservation Area	Town Conservation Area	Town of Amherst Conservation Commission	23.5
North Plum Brook Conservation Area	Town Conservation Area	Town of Amherst Conservation Commission	38.5
Norwottuck Rail Trail Extension	Town Conservation Area	Town of Amherst Water Department	7.95
Plum Brook Recreation Area	Town Conservation Area	Town of Amherst Parks and Recreation Department	12.2
Ramsay Steigner Conservation Area	Town Conservation Area	Town of Amherst Conservation Commission	2.1
Rodman Gatti Conservation Area	Town Conservation Area	Town of Amherst Conservation Commission	1.1
Simmons Farm	Town Conservation Area	Town of Amherst Conservation Commission	14
Slobody Farm	Town Conservation Area	Town of Amherst Conservation Commission	76.8
South Amherst Common	Town Conservation Area	Town of Amherst	2.4
South Plum Brook Conservation Area	Town Conservation Area	Town of Amherst Conservation Commission	12
Station Road Farm	Conservation Restriction	Town of Amherst Conservation Commission	10
Straker Property	Agricultural Preservation Restriction	Department of Agricultural Resources	25.4
Tofino Associates	Subdivision Open Space		8.8
Water Department Land	Town Land	Town of Amherst Water Department	47
Wellfield	Town Conservation Area	Town of Amherst Water Department	5.8
Wentworth Farm	Agricultural Preservation Restriction	Department of Agricultural Resources	96.7
Westover Meadow	Town Conservation Area	Town of Amherst	12.1

Topography: The topography of the Premises is nearly level with a total elevation change of less than 10 feet occurring across the entire property. The highest elevation (~167 feet above sea level) occurs along the central portion of the Premises with land very slightly sloping toward the north, west and east.

Soils: The following soil information was collected using the NRCS Soil Survey of Hampshire County, Massachusetts, Central Part, and visual observations obtained during the site visit on February 22, 2010. The Premises contains three primary soil types: Amostown fine sandy loam, 0 to 3 percent slopes (258A, ~4 acres); Scitico silt loam, 0 to 3 percent slopes (14A, ~3 acres); and Maybid silt loam, 0 to 3 percent slopes (12A, ~1 acres).

Amostown fine sandy loam, 0 to 3 percent slopes, soils dominate the eastern half of the Premises. This soil type is generally found on the footslope or summit of outwash plains, deltas and terraces. Amostown fine sandy loams are moderately well drained soils (meaning water is removed somewhat slowly during some periods), which may occasionally interfere with plant growth or cultivation. All areas of this soil type are classified as prime farmland. Soils designated as Prime Farmland have the best combination of physical and chemical characteristics for producing agricultural crops with minimal inputs and minimal soil erosion. Depth to bedrock in these soils is greater than 60 inches, and a seasonal high water table between 1.5 and 3 feet below the surface normally occurs from December through April.

Scitico silt loams are poorly drained hydric soils generally found in depressions. These soils are not classified as prime farmland because water in or on the soil may interfere with plant growth or cultivation. Poorly drained soils (meaning water is removed so slowly that the soil is saturated or remains wet for long periods) have severe limitation for agriculture, reducing the choice of plants or requiring very careful management or both. This soil type is also poorly suited to development such as dwellings with basements, small commercial buildings, septic tank absorption fields, and roads because of wetness, slow percolation and frost action. Depth to bedrock in these soils is greater than 60 inches; however, a seasonal high water table between 0 and 1 foot below the surface is normal between October and June.

Maybid silt loam, a hydric soil that is generally found in depressions, occurs in the northern part of the Premises. This soil type is very poorly drained, meaning that free water often remains on or near the surface because it is removed so slowly from the soil. Similar to Scitico soils, Maybid silt loams are not classified as prime or otherwise important farmland because water in or on the soil may interfere with plant growth or cultivation. This soil type is also poorly suited to development such as dwellings with basements, small commercial buildings, septic tank absorption fields, and roads because of ponding and frost action. Depth to bedrock in these soils is greater than 60 inches.

Agricultural Resources: The Premises has a long history of agriculture and is currently being utilized for haying. Approximately half of the Premises contain soils that are classified as Prime Farmland. Barbed wire fences, presumably installed for agricultural uses, are found in the southwest corner of the Premises. A large solitary white oak with wide-spreading branches¹ growing in the center of the open field, along with remnants of barbed wire fence along the southern boundary, may be testaments to a time when this parcel was used as pasture.

Water Resources: The entire Premises is located within the Massachusetts Department of Environmental Protection's Zone II Wellhead Protection Area and is covered by the Town's Aquifer Recharge Protection Overlay Zoning District (see "Water Resources" map). The Premises does not contain any significant perennial streams or waterbodies within its boundaries; however, it does contain multiple small intermittent streams and wetlands that drain directly into Hop Brook just a few yards north of [REDACTED] Road. Since Hop Brook is home to one Federally Endangered Species of fresh water mussel, multiple state-listed species of fresh water mussels, and a population of naturally reproducing brook trout, this direct hydrologic connection between the Premises and Hop Brook is highly important.

Wildlife Habitat/Conservation Resources: The Premises consists primarily of open hay field, most of which is classified as wet meadow (i.e. shallow marsh meadow or fen). This meadow is bounded by shrub swamp on the north and west, coniferous forest/forested wetland on the east, and a larger wet meadow to the south separated by a narrow strip of mixed forest which lines the southern boundary. Adjacent wetlands and fields are known to provide habitat for a diverse list of species, including American bittern, woodcock, long-eared owl and wood turtles, to name a few. The Premises' wet meadow provides habitat for grassland birds and a variety of other wildlife, while the edge habitat found at the intersections of open field and other cover types provides favorable conditions for a diversity of birds and rare wildlife species. Additionally, wetland areas on the Premises display characteristic mound and pool microtopography, providing habitat for a wider array of wetland species with varying habitat requirements.

The Premises contains areas known to be within the geographical extent of habitat for state-listed rare species (see "Priority Habitats" map). The Massachusetts Natural Heritage and Endangered Species Program (NHESP) has classified the entire Premises as Priority Habitat of Rare Species (PH 1337) and significant portions of the Premises as Estimated Habitat for Rare Wildlife (EH 89), affording these areas additional protection under the NHESP, Massachusetts Endangered Species Act, and Wetlands Protection Act. Furthermore, NHESP Biomap data characterizes more than 50 percent of the Premises as Core Habitat (BM 740), which is critical for the long-term viability of some of the state's rare plant and animal populations.

¹ Such trees, often called *pasture trees* or *wolf trees*, were often left in pastures to provide shade for the animals. Only trees grown in the open have this type of wide-spreading form; therefore, its presence indicates that this open field has been an open field at least as long as this tree is old. (Wessels 1997)

Following is a brief description of the Core Habitat found on the Premises, as stated in the BioMap and Living Waters: Guiding Land Conservation for Biodiversity in Massachusetts “Core Habitats of Amherst” document developed by NHESP.

BM740: *This Core Habitat is an important area for several rare plants and animals. It encompasses riparian habitats along portions of the Connecticut River, the Fort River, and Hop Brook, including extensive forested wetlands and small wet meadows in Lawrence Swamp. These areas support a diversity of rare dragonflies and plants, as well as Wood Turtles, Spotted Turtles, Four-toed Salamanders, and Bald Eagles. The Core Habitat also contains unusual wetland communities, including one that is specific to this part of the state. While some parts of this Core Habitat are protected, many riparian habitats appear to be unprotected. (NHESP 2005)*

Several bird species, including Eastern Bluebird and Red-winged Blackbird, were observed during the site visit to the Premises on February 22, 2010.

Vegetation: A single site visit was conducted on the Premises on a winter day, therefore there is a limited likelihood that uncommon species or species present or visible only during other portions of the year could be detected. No threatened or endangered species were detected on the Premises. All flora detected were common species characteristic of hay fields, forests, forested wetlands, and shrub swamps in Massachusetts.

Following are brief lists of representative species found in each community type. These lists represents only those species detected during the visit, and should not be viewed as a complete inventory for the property.

Open Field: Mixed Grasses (Family *Poaceae*), Wintergreen (*Gaultheria procumbens*), Clubmoss (*Lycopodium* spp.)

Shrub Swamp: Cat-tails (*Typha latifolia*), Buttonbush (*Cephalanthus occidentalis*), Speckled Alder (*Alnus Incana* Ssp. *Rugosa*), Red Maple (*Acer rubrum*), Dogwood (*Cornus* spp.), Northern Arrowwood (*Viburnum recognitum*), Sugar Maple (*Acer saccharum*), American Beech (*Fagus grandifolia*), Black Ash (*Fraxinus nigra*), Black Birch (*Betula lenta*), Paper Birch (*Betula papyrifera*), Northern Red Oak (*Quercus rubra*)

Forest & Forest Wetland²: Eastern White Pine (*Pinus strobes*), Northern Red Oak (*Quercus rubra*), Eastern Hemlock (*Tsuga canadensis*), Black Cherry (*Prunus serotina*),

² Due to the time of year of the site visit, many common wetland indicators (herbaceous plants, evidence of hydrology, etc.), were not present, making it difficult to distinguish between forest and forested wetland communities. Therefore, species in these two contiguous community types are listed together.

Eastern Red Cedar (*Juniperus virginiana*), Black Birch (*Betula lenta*), Striped Maple (*Acer pensylvanicum*), Paper Birch (*Betula papyrifera*)

Scenic, Historic, Educational, and Recreational Resources: The Premises is scenic in nature and contains approximately 605 feet of frontage on [REDACTED] Road. The open fields and low lying scrub-shrub vegetation afford significant views of the Mt. Holyoke Range and the area's rural landscape from [REDACTED] Road. In addition, the Premises lies within the direct viewshed of the Robert Frost Trail. Access from this trail to the Premises could potentially provide educational and/or recreational opportunities for viewing grassland birds, woodcock, and other wildlife with minimal disturbance.

While no trails currently exist on the Premises, the Robert Frost Trail, a major regional hiking trail, traverses the neighboring Lawrence Swamp Conservation Area within 50 feet of the property's eastern boundary. A dirt/gravel parking lot with space for 3-4 vehicles and a trailhead are located directly east of the property's northeast corner (see photo 3 and attached *Photopoint Map*). Additionally, one of Amherst's Literary Trails is located directly across [REDACTED] Road, and the Norwottuck Rail Trail is located approximately 1/8th of a mile to the east of the Premises. A paved parking lot with 20 spaces is located next to the Rail Trail along [REDACTED] Road within walking or biking distance to the Premises.

Existing Human Modifications: Human-made features on the property include the following:

- Barbed-wire fence in southwest corner of the Premises,
- Three culverts along the northern boundary that serve as conduits for moving water off of the property and under [REDACTED] Road as it flows toward Hop Brook,
- Metal debris including two old rusted metal wheels along the northern boundary east of the entrance to the parcel (where there is a gap in the shrub swamp),
- Drainage ditch along [REDACTED] Road and the northern boundary, and
- Trash/litter from [REDACTED] Road traffic along the northern boundary.

References

Natural Heritage & Endangered Species Program. 2005. *BioMap and Living Waters: Guiding Land Conservation for Biodiversity in Massachusetts*. “Core Habitats of Amherst.” Massachusetts Division of Fisheries and Wildlife, Westborough, Massachusetts.

Natural Resources Conservation Service, *Soil Survey of Hampshire County, Massachusetts, Central Part*. United States Department of Agriculture.

Wessels, Tom. 1997. *Reading the Forested Landscape: A Natural History of New England*. The Countryman Press, Woodstock, Vermont.