
Stewardship Plan



*Buffalo Park,
A Conservation Area*

Tilton,
New Hampshire

Prepared for: Town of Tilton
257 Main Street
Tilton, New Hampshire
(603) 286-4425

Prepared by **VHB**/Vanasse Hangen Brustlin, Inc.
Kilton Road, Six Bedford Farms, Suite 607
Bedford, New Hampshire
(603) 644 0888

Revised May 27, 2005

Stewardship Plan Buffalo Park, Tilton, NH

1.0 Introduction

This stewardship plan was developed by Vanasse Hangen Brustlin, Inc. (VHB) to fulfill the New Hampshire Department of Environmental Services (NHDES) requirements for a written management plan for all properties proposed as mitigation for wetland impacts identified on a wetland dredge and fill application. The subject parcel, referred to locally as Buffalo Park, is being offered as compensatory mitigation (*i.e.*, preservation) for the retail development project proposed by Konover Development Corporation along NH 11 in the Town of Tilton.

Buffalo Park is a 55 +/- acre tract located in Tilton, New Hampshire (**Figure 1**) and is found on Tax Map R-17, Lot 20. A Baseline Documentation Report was prepared by VHB for the property in December 2004.¹ That report provides a description of the existing conditions on the parcel including soils, vegetation and wildlife. In addition, a discussion of the suitability of the parcel as a conservation area for the Town of Tilton is provided. This latter discussion includes an analysis of the functions and values of the proposed conservation parcel, including the ratio of upland and wetland.

This Stewardship Plan is intended to allow for adaptive management of the parcel, based upon the premise that managed natural systems are complex and unpredictable and that the needs of the community may evolve with time. No action may be taken which contravenes the Declaration of Restriction and Covenants (the "Declaration"), as finally recorded at the Belknap County Registry of Deeds. And, the Declaration shall control where the language of this plan or future revisions conflict with the Declaration. However, within this constraint, this Stewardship Plan may be adjusted from time to time by the Tilton Conservation Commission or its successor as new and better information

¹ Buffalo Park Proposed Conservation Assessment, Baseline Documentation Report. December 2004. Prepared for the Town of Tilton, New Hampshire by Vanasse Hangen Brustlin, Inc.

emerges about the ecosystem within the conservation area or where dictated by the best interests of the community.

In keeping with the adaptive nature of this management plan, the Tilton Conservation Commission will review and amend this plan as necessary no less frequently than every five years.

2.0 General Site Description of Parcel

Buffalo Park is an irregularly shaped parcel located south of Colby Road, east of Winter Street, and west of School Street. High Street Extension and a right-of-way (ROW) at the end of Highland Avenue, both provide access into the property along its southern boundary. A synopsis of the baseline documentation report (VHB 2004) is presented below as background to the stewardship plan presented later in this report.

Natural Communities

The majority of the property is presently covered by a mature, mixed-northern hardwood - softwood forest. Other communities include: eastern white pine forest in nearly pure stands, mixed northern hardwood forest, mixed softwood forest, and forested wetland. Two perennial streams, Packer Brook and an unnamed tributary to the Winnepesaukee River, flow across the property in a northeast to southwesterly direction. A third stream just west of the parcel flows in a similar direction. **Table 1** provides a summary of the acreage and percent coverage for the various community cover types on the parcel. **Figure 2** provides a map of these cover types on the parcel.

Table 1 - Cover Type Acreages and Percent

| Cover Type | Acreage (+/-) | Percent |
|--------------------------------|---------------|---------|
| Eastern White Pine Forest | 15.0 | 26.5 |
| Northern Hardwood Forest | 8.5 | 15.0 |
| Mixed Softwood Forest | 21.2 | 37.5 |
| Mixed Hardwood-Softwood Forest | 5.6 | 9.9 |
| Palustrine Forested Wetland | 5.6 | 9.9 |
| Stream | 0.7 | 1.2 |
| Total | 56.6 | 100.0 |

The parcel's forest cover is all second growth, having matured on abandoned pasture. The white pines on the northwestern side of the property appear to be 60 to 75 years old and probably represent the youngest stand of trees on the parcel. The vast majority of trees on the remainder of the parcel are older, suggesting that when it was used in more modern times for raising buffalo, much of it was already re-forested. It is probably of some significance that the

subspecies of bison (*Bison bison*), which once roamed prehistoric New England, was a woodland native.

Floodplain wetlands are associated with each of the two streams on the property, while large areas of upland are located between these lowland valleys. Additional forested wetlands occur along the north-central portion of the property, with drainage either to the southwest or southeast, connecting ultimately with the stream systems just mentioned that run through the western and eastern portions of the property.

A list of plant species observed during the field reconnaissance conducted on November 11, 2004 was provided in the Baseline Documentation Report (see Table 1 in VHB 2004). Lists of wildlife species, both expected to be found on the site and those actually observed or their sign, was included (see Table 2 in the VHB baseline Documentation Report 2004).

Trail System

A fairly extensive trail system exists on the property. The trails apparently receive a high level of use since they are well-defined paths with little vegetative encroachment. Evidence of historical human use includes small trash piles, and a stonewall and wire fence traversing the entire property boundary, the latter features indicative of its use for raising buffalos in the 19th century. The woven wire fence is in a dilapidated condition, but once stood approximately 6-feet high with an additional two feet of barbed wire on top. It is easy to imagine that such a fence was used to contain the buffalo that the former owners of the property once raised.

Surrounding Land Use

Land use surrounding Buffalo Park is primarily residential (urban) development to the south; agriculture to the west; a mix of recently-cleared land, commercial and residential development, and undisturbed forest to the north; and rural-residential and agricultural use to the east.

3.0 Establishment of a Management Philosophy

There are a variety of stewardship philosophies, some with very opposite or contradictory goals that could be followed to “manage” Buffalo Park in perpetuity. The selected philosophy or stewardship plan has to first take into account the original purpose for establishing the conservation area – *i.e.*, to compensate for the wetland impacts associated with the proposed development in another part of the town. Use of the parcel as a form of compensatory mitigation for these impacts requires that the land preserved, specifically the uplands, provide future protection of the wetlands that exist today on the property. The permanent protection of these wetlands and their surrounding

buffer is intended to compensate for the lost functions and values in the impacted wetlands.

The second consideration must necessarily take into account what is best for the resources on the parcel. The current condition and value of the habitats on the site, the presence of a rare, threatened or endangered species, the occurrence of an exemplary natural community type, or any number of other ecological, historical, or geological features have been taken into account in determining a long-term management plan.

The third consideration must take into account the desires of the stakeholders, in this case the citizens of Tilton, since the parcel will be publicly owned. By definition, wetland “values” (in contrast to “functions”) are related to the *public* benefits provided by a wetland (*e.g.*, recreation, flood protection, groundwater recharge, education and scientific value, etc.). The dredge and fill application for the retail development project indicates that the principal functions and values provided by the four wetlands impacted by the project were groundwater recharge/discharge and sediment/toxicant retention. The wetland with the greatest impact also provided floodflow alteration and wildlife habitat.

4.0 Selected Management Philosophy

Based on the above described considerations, including discussions to date with town officials, VHB recommends a stewardship plan whose goal is to ensure the preservation of the “old growth” that currently exists on the property. The density and age of trees comprising the forest communities represent a condition that is becoming increasingly rare in the southern half of New Hampshire. The vegetation communities on the parcel have been virtually untouched for over 60 years with many areas undisturbed for much longer since it can be presumed that raising buffalo (a woodland species) was compatible with the presence of a significant portion of the property being wooded.

The greatest value of the natural communities on the Buffalo Park property is the maturity and healthy condition of the forest stands along with the presence of two high quality perennial streams. An old-growth management philosophy will ensure that the equilibrium nature of the forest communities continues into the future. The present condition of the communities on the site provides an opportunity for educational use and even scientific research. The alternative strategy would be to actively manage the property for the highest diversity of wildlife species by creating the highest diversity and interspersions of habitat types. The chosen plan as discussed in this report is essentially a passive management of the natural communities, but with an active oversight and protection from human despoliation.

Consistent with this philosophy, “use limitations” are specifically spelled out in the *Declaration of Conservation Covenants and Restrictions* (see Appendix A for copy). That document also provides a list of “allowed activities.” The language of the document was jointly worked out by attorneys for the Konover Development Corporation, the Town of Tilton, and the Tilton Conservation Commission. The detailed plan, which is described below, was developed in accordance with these limitations and allowances.

5.0 Initial Measures to Establish the Conservation Area

The following tasks will be performed to assist in conservation area planning and before formally opening the conservation area to the public:

1. **Corner Bounds** - using the boundary survey that has been completed, permanent bounds or markers will be installed by a licensed surveyor which identify all corners of the property. This step is necessary to avoid misunderstandings with adjoining property owners as well as to provide the Conservation Commission and others with a quick reference in the field to the actual limits of the property.
2. **Marker Signs** - to indicate the location of and restrictions on the conservation area shall be posted no further than every 150 feet along the boundary of the conservation area by October 1, 2005.
3. **Base Map** - a survey plan or map of the parcel will be prepared to scale that shows the corner bounds, distances, and any other features that were originally picked up during the boundary survey. This map will be created in an electronic format and then converted to a current Geographic Information System (GIS) platform for use as the official base map for the conservation area. This map will facilitate planning and will permit the addition of supplementary information, *e.g.*, cover type delineations, USGS topographic contours, aerial photography, etc.
4. **Trail Network** – a Global Positioning System (GPS) instrument, in combination with aerial photographs, will be used to map the existing trail system so that it can be added as a “layer” to the conservation area’s GIS base map and be used to help create a “conservation area brochure” which will have a trails map for public use.

6.0 Enhancements for Public Use

Several specific measures will be undertaken to enhance public use of the property:

1. **Entrance sign(s)** -- an official sign or signs identifying Buffalo Park as public land and being open to the public will be erected at the current access point at the end of High Street Extension. This access point will be maintained in order to serve pedestrians walking from nearby neighborhoods or from downtown Tilton. If additional points of access to the conservation area are established, similar signs will be constructed at each entrance.

The entrance sign(s) will be of wood or a recycled material that mimics wood and which is aesthetically pleasing. Enhancements to the sign, such as incorporation of a wooden roof or placement within a kiosk or similar structure, will be at the discretion of the Conservation Commission. The entrance sign(s) will *not* be illuminated.

The entrance sign(s) will contain at least the following information:

- Name of the conservation area --“Buffalo Park, A Conservation Area”
- Date of establishment as a public conservation area (March 28, 2005)
- The name of the entity that provided funding for the conservation area, i.e., *Konover Development Corporation*
- Hours of operation - *i.e.*, closes at dusk without prior permission from the Conservation Commission. This will cover unusual circumstances involving scientific or educational use that can occur only after dark, *e.g.*, breeding amphibian surveys, owl censuses, etc.
- Prohibitions including no motorized recreational vehicles;² no dumping; fires; alcohol; unleashed pets; plant collecting; or water withdrawals.
- Request that items carried into the conservation area be carried out (trash receptacles not provided).

The placement of small auxiliary signs that identify interesting or important natural, historical, or cultural features will be allowed within the conservation area. The form, content, size, placement and other characteristics will be determined at the discretion of the Conservation Commission. No other signs will be erected in the conservation area without the written permission of the conservation commission.

A temporary sign may be placed during hunting season, to alert the general public and advise caution.

2. **Main Entrance and Parking** - a small parking area will be created on conservation area property at the end of High Street Extension. As indicated earlier, this entrance will serve not only walkers from the residential and

² Only vehicles that have received authorization of the Conservation Commission may operate within the park and only for the purposes of maintenance or in cases of an emergency.

business areas of the town, but also those individuals who require a motor vehicle to access the conservation area. This entrance is within walking distance of the elementary, middle, and high schools. The Conservation Commission will work with the Public Works Director to explore the possibility of utilizing a portion of the Town's existing right-of-way at the end of the High Street Extension to provide additional area for the parking lot so as to minimize the amount of land that must be taken from the conservation area parcel itself. No more than one-eighth acre (5,445 square feet) of the conservation area's land can be used for this parking lot which will *not* be paved.³

3. **Additional Entrances and Parking** - opportunities for additional conservation area entrances, including a parking lot, will be explored by the Conservation Commission in conjunction with other town departments with property owners that abut Buffalo Park, including the Tilton School. Current access to the property from the west, aside from the High Street Extension entrance, requires crossing private property. No more than ½ acre of conservation area land may be used for parking lots and entrances in total as per the "Declaration of Covenants, Section #3 – Allowed Activities, paragraph C," negotiations will be conducted with adjacent property owners in order to gain access as well as to construct a parking lot that will accommodate at least one school bus . Purchase or easements with these neighboring property owners may be pursued. The parking lot and any portion of the entrance driveway physically located on the original conservation area property will *not* be paved.

7.0 Conservation Area Monitoring and Maintenance

The following maintenance measures will be followed to ensure that the long-term purpose of the conservation area can be fulfilled:

1. All trails will be walked at least once every 3 months by a representative of the Conservation Commission or their delegate to determine whether maintenance, such as the removal of down trees or repair of washouts, is necessary. The Conservation Commission will coordinate scheduled maintenance and necessary corrective actions. Trail maintenance procedures will follow the guidelines found in *Best Management Practices for Erosion Control During Trail Maintenance and Construction* published by the Division of Parks and Recreation, NH Department of Resources and Economic Development (1994, rev. 2004). At least twice per year, property inspection will be documented in writing (on a standardized form to be developed for

³ The *Declaration of Covenants and Restrictions* (draft) stipulates that the total area of parking lots within the park can not exceed one-half acre (21,780 square feet). It also stipulates that they be "gravel parking lots."

such purposes) by the Conservation Commission and retained in Commission files.

2. Fire suppression within the conservation area will be the responsibility of the Tilton-Northfield Fire Department.
3. Illegal dumping or disposal of household or industrial materials in the conservation area will be investigated by the Conservation Commission in conjunction with the Tilton Police Department. If not of a hazardous nature, its removal will be coordinated by the Conservation Commission with the Public Works Department. The Town of Tilton will contract with a licensed disposal firm for the removal and remediation of hazardous materials if necessary.
4. Snow removal in the parking lots at the conservation area's entrances will be the responsibility of the Public Works Department and will be scheduled after every storm to ensure year-round use of the conservation area.

EXECUTED on _____, 2005.

TOWN OF TILTON
By and through its
CONSERVATION COMMISSION

By: _____
Chair

By: _____
Vice Chair

STATE OF NEW HAMPSHIRE
COUNTY OF BELKNAP

The foregoing instrument was acknowledged before me on the ____ day of _____, 2005, by _____, Chair of the Tilton Conservation Commission, on behalf of the Commission, acting on behalf of the Town of Tilton.

Notary Public/Justice of the Peace
My commission expires: _____

STATE OF NEW HAMPSHIRE
COUNTY OF BELKNAP

The foregoing instrument was acknowledged before me on the ____ day of _____, 2005, by _____, Vice Chair of the Tilton Conservation Commission, on behalf of the Commission, acting on behalf of the Town of Tilton.

Notary Public/Justice of the Peace
My commission expires: _____