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# Stewardship Plan Isinglass River Conservation Reserve, Strafford, NH

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Contact the Piscataqua Region Estuaries Partnership for complete document.

**Stewardship Plan for the  
Isinglass River Conservation Reserve:  
Hanson Lot and Bedford Lot**

**Strafford, New Hampshire**



Prepared for the  
Strafford Conservation Commission

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February 2010

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**Isinglass River Conservation Reserve  
Hanson Lot and Bedford Lot**

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- Appendix E Boundary Survey – Bedford Lot
- Appendix F New Hampshire Natural Heritage Bureau Report – Hanson Lot
- Appendix G New Hampshire Natural Heritage Bureau Report – Bedford Lot
- Appendix H Isinglass River Conservation Reserve Plant and Animal Species List
- Appendix I List of Resource Contacts
- Appendix J New Hampshire List of Invasive Species

## Acknowledgments

The Strafford Conservation Commission provided guidance throughout the development of this Stewardship Plan. We met on three occasions to discuss management goals, locations of trails, public uses, and other pertinent stewardship issues. I thank Liz Evans, Conservation Commission Chair, for providing access to numerous documents related to the two properties. These provided an important framework for development of the Plan. Thanks also to the Town of Strafford staff at the town office, for their welcoming accommodations and access to town documents.

Several people familiar with the site shared their knowledge of the ecology and history of the two parcels, and led several walks through the properties as we gathered more data for the Stewardship Plan. Phil Auger, Strafford resident and Board member for Bear-Paw Regional Greenways, provided extensive background information on the two properties. Strafford resident Scott Young shared his knowledge of the plants and wildlife that abound on the Isinglass River Conservation Reserve. Many others contributed through their participation in the 2008 Biothon that was held on the Reserve.

Finally, thanks to the Piscataqua Region Estuaries Partnership (PREP), and its Director Jennifer Hunter, for funding the development of this Stewardship Plan through their Community Technical Assistance Program (CTAP).

---- *Ellen Snyder, Ibis Wildlife Consulting*

# Chapter 1      Property Description

## Location and General Description

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The 286-acre Hanson and 79-acre Bedford Lots are located in Strafford, New Hampshire, near the Town's eastern boundary with the Town of Barrington (Map 1). The Hanson Lot is on the northeast side of Range Road and New Bow Lake Road, and east of the class VI Pig Lane. It is bounded on the north and west by the Isinglass River, encompassing 7,800 feet of river frontage. Several rural residences are found along the southern boundary of the property, which also includes 430 feet of frontage on New Bow Lake Road (class VI) and a short stretch of Range Road (Map 2). A Public Service of New Hampshire (PSNH) utility right-of-way extends the length of the property near its eastern boundary. The Hanson Lot is identified on the Strafford Tax Map as Map 12, Lots 2 and 42 (Appendix A).

The Bedford Lot, located a short distance west of and upstream from the Hanson Lot, lies on the north side of Ricky Nelson Road across from the town Transfer Station. It includes 874 feet of road frontage. The property is bounded to the east by approximately 1,000 feet of frontage on Old Bunker Road, a discontinued town road (Map 2). The Bedford Lot includes two separate parcels: a 72-acre parcel and a disjunct 7-acre parcel located about 150 feet northwest of the main holding. The 7-acre section has 1,180 feet of frontage on the Isinglass River, which forms its northern boundary. The larger parcel is bounded on the north by several small, undeveloped, privately-owned tracts. Both Bedford tracts are identified on the Strafford Tax Map as Map 8 Lot 10 (Appendix A).

The boundaries of the two properties are well-delineated. The entire Bedford Lot boundary is marked by blazes that were notched and painted by the surveyor on behalf of the Town. The Hanson and Bedford Lots are the cornerstones of the Isinglass Reserve Conservation Reserve (IRCR). The Conservation Commission is working with other interested landowners to expand the Reserve.

In addition to the significant frontage on the Isinglass River, the Hanson Lot supports myriad wetlands – vernal pools, beaver flowages, forested swamps, meadow marshes, and scrub-shrub wetlands. These are embedded within a *hemlock – oak – beech - pine forest* that was heavily logged in 1998. A plan to build a large 58- to 70-lot residential subdivision on the property was averted by the acquisition of the Hanson Lot as permanent conservation land. The Bedford property is also mostly wooded; the forest was carefully managed by previous owners and therefore retains a mix of tree species and ages. Together the properties are embedded within a 1,800-acre block of undeveloped lands that offers habitat for wide-ranging wildlife, protects water quality, and provides unique recreational experiences. A woods road runs through both properties, used by snowmobilers, hikers, mountain bikers, and horseback riders. The river corridor is a popular fishing destination.

## History of the Properties

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### *Town Acquisition*

The Town of Strafford acquired the 286-acre Hanson Lot from Boulders at Strafford, LLC, on July 30, 2008 for \$1,500,000. The Trust for Public Land (TPL) negotiated the purchase from the developers, which prevented the development and permanently conserved this property. The project required substantial funding efforts by TPL, the Strafford Conservation Commission, Bear-Paw Regional Greenways, and many other partners. The largest source of funding for the acquisition was a \$1.3 million grant from the National Oceanic and Atmospheric Administration (NOAA) Coastal and Estuarine and Land Conservation Program (CELCP). Other funders included the Strafford Conservation Commission (\$150,000), NH State Conservation Moose Plate Program (\$40,000), and over \$100,000 from private donations and foundations. In addition, several landowners donated properties or conservation easements on their properties, which served as critical match for the CELCP grant.

One of those donations of property was the 79-acre Bedford Lot. The Town acquired this property from the Carolyn S. Bedford Revocable Trust of 1990 on July 29, 2008. The Town of Strafford conveyed a conservation easement on the Hanson and Bedford properties to Bear-Paw Regional Greenways on August 1, 2008. The boundaries of both properties were surveyed. MSC Civil Engineers & Land Surveyors surveyed the Hanson Lot. T.D. Brouillette Land Surveying surveyed the boundary of the Bedford tracts. The conservation easement deeds and the boundary surveys were recorded at the Strafford County Registry of Deeds (see Table 1 and Appendices B-E).

**Table 1. Recorded Documents for the Isinglass River Conservation Reserve, Hanson and Bedford Lots, Strafford, New Hampshire.**

Document	Recording Date	Strafford Registry of Deeds	Stewardship Plan Appendix
<b>Hanson Lot</b>			
Warranty Deed	Aug 1, 2008	Book 3667 Page 0375	
Conservation Easement Deed	Aug 1, 2008	Book 3667 Page 0384	Appendix B
Boundary Survey	July 14, 2008	Plan 95-001 and 95-002	Appendix C
<b>Bedford Lot</b>			
Warranty Deed	Aug 1, 2008	Book 3667 Page 0404	
Conservation Easement Deed	Aug 1, 2008	Book 3667 Page 0411	Appendix D
Boundary Survey	Aug 1, 2008	Plan 95-018	Appendix E

### *Prior Ownership*

The Boulders at Strafford, LLC purchased the 286-acre property from Robert J. Vranovsey on July 9, 2001. Mr. Vranovsey owned the property for just over one year; he had acquired the property from Peter A. Tyler on May 8, 2000. Mr. Tyler acquired the property on August 14, 1998 from owners in Massachusetts, and immediately set about logging the property. As owner of Peter Tyler Lumbering of Farmington, Maine, Mr. Tyler liquidated the property himself. The timber tax records at the Strafford Town Hall indicate that significant volumes were harvested from 275 acres of the 300 acres owned by

Mr. Tyler (see Table 2). This applies to most of the acreage that is now the Isinglass River Conservation Reserve – Hanson Lot.

**Table 2. Timber tax records for wood products harvested from the Hanson Lot (Tax Map 12 Lots 2 and 42) in 1998-1999.**

<b>Tree Species</b>	<b>Volumes</b>
White pine	778,005 board feet
Hemlock	289,180 board feet
Oak	13,050 board feet
Pallet or tie logs	488,756 board feet
Pulpwood – hardwood/aspen	392 cords
Pulpwood – pine	756 cords
Pulpwood – hemlock	805 cords

Strafford Conservation Commission Chair, Liz Evans, researched the deed history of the 276-acre parcel to help identify a fitting name for the newly-acquired town property. The bulk of the property is referred to in the deeds as the Nathan J. Hanson farm, from the 1890s to the present. At their February 1, 2010 monthly meeting, the Conservation Commission voted to name this parcel the “Hanson Lot.”

The Hanson Lot has no known historical foundations, indicating that it was never a farmstead or homestead. A partial foundation pad with cinder blocks is located on the property, assumed to be a relatively recent attempt to build a house. Remnants of a series of dams and buildings that once served a grist mill and a shingle mill are located along Pig Lane and along the Isinglass River on the abutting Foss Mill and Swain’s Mill (Walton’s Mill) properties.

The Bedford property was the 19<sup>th</sup> century pasture and apple orchard of Ben Bunker. The Bunker home and barn stone foundations are still evident at the intersection of Bunker and Range Roads. These buildings were originally built by the Clark Family, one of the earliest settlers in this part of town.

### **Conservation Easements**

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As noted above, the Town conveyed conservation easements on the Hanson and Bedford Lots, respectively, to Bear-Paw Regional Greenways. This local land trust will monitor the easement annually in partnership with the Town to ensure that all aspects of the easement deed are adhered to.

The Conservation Easement Deed for each property describes the purposes, use limitations, and reserved rights, which guide the stewardship of the property. Since both properties were conserved through a grant from NOAA’s Coastal and Estuarine Land Conservation Program (the Bedford Lot was a match property), the easement language reflects the goals of that program as well as the conservation goals of the Town of Strafford and Bear-Paw Regional Greenways.

For the full text of each Easement Deed see Appendices B and D. The pertinent parts of the deeds that relate to land stewardship are summarized below.



*Conservation Purposes for which the properties were protected:*

- Protect ground water and surface water, including the Isinglass River
- Protect wildlife habitat, forests, and wetlands, including the 8,980 feet of riparian habitat along the Isinglass River
- Increase the amount of protected land within an 1,800 acre block of unfragmented land
- Protect undeveloped road frontage and scenic enjoyment

*Use Limitations*

- No residential development or industrial or commercial activities and no subdivision of the properties
- Management activities shall be conducted in accordance with a Stewardship Plan (This Plan meets this requirement) and according to the following goals:
  - Protect water quality, wetlands, and riparian areas
  - Maintain or enhance wildlife habitat
  - Protect unique or fragile natural areas
  - Conserve native plants and animals, and natural communities
  - Maintain soil productivity
  - Maintain or enhance scenic quality
  - Control invasive species
  - Restore and manage forest to reflect pre-settlement conditions (see page 20 for more details)
  - Protect unique historic or cultural features
- No structure or improvement; ancillary structures and improvements are allowed if needed for conservation, habitat management, education, or non-commercial outdoor recreation. These should be described in the Stewardship Plan or given prior approval by Bear-Paw as the easement holder
- No removal, filling, or other disturbances of soils, changes in topography, water bodies, wetlands, or natural habitat unless for conservation, habitat management, education, or non-commercial outdoor recreation and consistent with Easement purposes
- No signs except for conservation, habitat management, education, or non-commercial outdoor recreation purposes
- No mining, quarrying, excavation, or removal of rocks, minerals, gravel, sand, topsoil, water, or similar materials
- No dumping, injection, burning, or burial of manmade materials or hazardous materials
- No posting to prohibit public access for traditional, daytime, non-motorized, noncommercial, non-intensive outdoor educational or recreational purposes; The Town can establish rules and regulations for permitted uses and can prohibit or limit camping, loud activities, alcohol use, open fires, use of motorized vehicles, or other uses detrimental to Easement purposes.

*Reserved Rights of the Town*

- To create new trails or the relocation of existing trails, as described in the Stewardship Plan
- To construct a parking lot up to 5,000 square feet in size, built with permeable surfaces within 300 feet of Range Road or New Bow Lake Road
- To conduct archaeological activities

*Stewardship Plan Requirements*

The Conservation Easement Deeds include guidance on the contents of the Stewardship Plan, which are fully addressed in this 2010 Stewardship Plan. Specifically the Easement Deed states that,

“Any cutting of trees or vegetation on the Property shall be practiced primarily to enhance or protect wildlife habitat, maintain the health of the forestland, or reasonably provide for limited educational or non-commercial recreational opportunities.”

And,

“No resource management activities shall be undertaken with the specific purpose of income generation.”

**Stewardship Responsibilities**

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The stewardship of the town-owned Isinglass River Conservation Reserve parcels rests with the Strafford Conservation Commission, as noted in the Conservation Easement Deeds. The Conservation Commission is active, with a strong tradition of members volunteering their time and energy for land conservation and stewardship activities. Town conservation properties are well-managed. For example, the Strafford Town Forest is guided by a Forest Management Plan prepared by consulting forester Charlie Moreno.

The Conservation Commission does not have a dedicated budget for land stewardship. However, it has been successful in applying for grants to complete management plans and accomplish other stewardship activities. Appendix I provides a list of resources that can help the Conservation Commission implement the recommendations in this Stewardship Plan.

Bear-Paw Regional Greenways is responsible for annual monitoring of the property to ensure consistency with the conservation easement provisions.

**Purpose of the Stewardship Plan**

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As a community resource the Hanson and Bedford Lots offer many benefits and values to Strafford residents and visitors. These include wildlife habitat, scenic beauty, clean air, cool temperatures, walking and snowmobile trails, fishing, water quality protection, among others. People may value these properties for different reasons. Fortunately, most of these are complementary benefits, each available without compromising the integrity of the others.

A goal of this Stewardship Plan is to understand and appreciate the values of the Isinglass River Conservation Reserve and to guide the use and management of these resources over time. This is

achieved by identifying the known soils, topography, plants, animals, habitats, forests, waterways, historical artifacts, and public uses that occur here. The surrounding landscape, including ownership patterns, affects these properties, and therefore can influence stewardship decisions. Past, present, and potential future natural and human disturbances are also an important factor in guiding long-term stewardship. The Stewardship Plan builds an understanding of the relationship among these features and factors.

Another important purpose of the Stewardship Plan is to meet the provisions of the Conservation Easement Deeds for both properties. As described above, the Conservation Easement Deeds require that all activities on these properties be conducted in accordance with a Stewardship Plan, including the management goals for which the property was conserved.

The Stewardship Plan includes the following chapters and materials:

- ❖ **Chapter 2 -- Ecological Features** describes the landscape setting, topography and soils, natural communities and habitats (wetlands, upland forests, and other wildlife habitats), and environmental health of the Hanson and Bedford Lots.
- ❖ **Chapter 3 – Public Access and Uses and Other Resources** describes existing trails, access points, public uses, and cultural features of the property.
- ❖ **Chapter 4 – Stewardship Recommendations** presents potential management actions that can be implemented on the town properties to sustain and enhance its ecological features, environmental health, and the public benefits. Appendix I includes a list of programs that can provide further technical assistance or potential grant funding to help implement these actions.
- ❖ **A set of maps** is included in the plan to further illustrate the ecological, recreation, and cultural features of the Isinglass River Conservation Reserve.
- ❖ **Appendices A-I** provides additional background material and documents associated with these properties.

## Chapter 2 Ecological Features

### Landscape Setting

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The Isinglass River Conservation Reserve (IRCR) sits at the northern margin of the USDA Forest Service Gulf of Maine Coastal Plain ecoregion (Keys and Carpenter 1995) in the headwaters portion of the coastal watershed of the Cocheco River. A few miles north the Blue Hills Range marks the transition to the Lakes region, and two miles west Bow Lake perches at the transition to the Merrimack River valley. The topography of the region consists of low hills and rolling terrain covered by thick layers of acidic glacial till. Drumlin hills and ridgelines comprised of compact till, trend in a northwest-southeast direction. Loose, rocky till covers extensive intervening terrain, including the corridor through which the threaded Isinglass River meanders in the IRCR area. Most of the best farmland in the area occurs on the gently sloped portions of drumlin soils.

Despite its location in one of the fastest growing regions of the state, the IRCR is part of a nearly 1,800-acre block of relatively unfragmented forest and riparian habitat of regional and statewide conservation significance. The New Hampshire Wildlife Action Plan mapped this section of the riparian corridor as highest quality habitat in the state (Tier 1) and a majority of the upland forest as Tier 2 habitat, the highest quality habitat designation within the region (NHFG 2005). The Land Conservation Plan for New Hampshire's Coastal Watersheds identified the 850-acre Upper Isinglass River, encompassing the IRCR, as a Conservation Focus Area (Zankel et al. 2006). Within this Focus Area, the river and associated riparian area were designated as a *Core Area*, and the majority of the upland areas were designated as *Supporting Natural Landscape*.

#### *The Isinglass River Subwatershed*

The IRCR is located along the upper Isinglass River, less than two miles from the outlet of Bow Lake at 515 feet in elevation. From the outlet, the Isinglass flows freely for approximately 18 miles, dropping 395 feet over this distance to its confluence with the Cocheco River, a tributary to the Piscataqua River and Great Bay. The Isinglass River subwatershed is approximately 75 square miles (Map 1) and includes the Mohawk River, Nippo Brook, Berrys River, Green Hill Brook, and the outlets of Ayers and Hanson Ponds. The Isinglass River flows through the Towns of Strafford, Barrington, and Rochester.

The Isinglass River is one of 15 rivers designated by the Governor and Legislature of the State of New Hampshire as deserving of extra protection under the state's Rivers Management and Protection Program (RMPP). The designation recognized the special qualities of the Isinglass River and, under the provisions of RSA 483, the designation provides increased protection against the construction of new dams, damaging channel alterations, water quality impairment, and the siting of solid and hazardous waste facilities in the river corridor (Strafford Regional Planning Commission 2008). In 2009, the Cocheco River was also designated under the RMPP.

The Isinglass River is recognized for its ecological and cultural significance. The New Hampshire Department of Environmental Services states that, "the significance of maintaining a high level of water quality in the Isinglass River is evidenced by the use of the river for recreational purposes, by the presence of a cold water fishery, its use as a public water supply for the City of Dover, and as a significant contributing factor to the water quality observed in the Cocheco River downstream of its confluence with the Isinglass." The City of Dover maintains the only registered water withdrawal permit, which it uses to recharge a well supplying public drinking water to a number of its 28,000 residents.

Additionally, the Isinglass River recharges numerous wells along its length and Barrington's northern aquifer, serving many of that town's 8,000 residents (Bear-Paw Regional Greenways LCHIP application).

Downstream from the Isinglass Reserve, the NH Fish and Game Department (NHFG) stocks thousands of rainbow and brook trout annually. Several threatened, endangered, or species of special concern have been reported from the Isinglass River corridor. These include bald eagle, common loon, osprey, Cooper's hawk, common nighthawk, small-footed bat, wood turtle, Blanding's turtle, and spotted turtle (SRPC 2008). Additionally, New Hampshire's Natural Heritage Bureau (NHNHB) reports 11 plant species within the towns through which the Isinglass River flows that are rare (threatened or endangered) or of special concern at the state level. Rare plants listed as threatened or endangered include dwarf huckleberry, large yellow lady's slipper, ginseng, American plum, wild lupine, slender crab-grass, river bank quillwort, Englemann's quillwort, and climbing hempweed. Special concern species include pitcher plant and trailing arbutus.

The middle reach of the Isinglass River from immediately downstream of the Route 202A Bridge in Strafford to immediately upstream of the Route 126 Bridge in Barrington, a distance of 5.75 miles, is designated as a "natural river." Natural rivers constitute outstanding natural resource waters and are defined under RSA 483 as "free-flowing rivers or segments characterized by the high quality of natural and scenic resources. River shorelines are in primarily natural vegetation and river corridors are generally undeveloped. Development, if any, is limited to forest management and scattered housing" (SRPC 2008). The Isinglass River Conservation Reserve lies within this middle reach (Map 1).

The Strafford Regional Planning Commission, with assistance from the NH Department of Environmental Services Rivers Management and Protection Program, prepared a River Management Plan for the Isinglass River Local Advisory Committee (IRLAC). A copy of the Plan can be viewed at [www.strafford.org/natres/docs\\_rivers/Final%20Isinglass%20River%20Management%20Plan%206\\_24\\_08.pdf](http://www.strafford.org/natres/docs_rivers/Final%20Isinglass%20River%20Management%20Plan%206_24_08.pdf). For more information see the Isinglass River Nomination web page at NH DES: <http://des.nh.gov/organization/divisions/water/wmb/rivers/ising2.htm#2b4>

## **The Isinglass River Conservation Reserve**

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One of the more notable features of the Isinglass River Conservation Reserve is the diversity of natural communities, ranging from the aquatic and marshland habitats of the free-flowing river itself, to the variety of swamps, vernal pools, and marshes along feeder streams and scattered basin wetlands within the matrix of extensive forest land (Map 3 and Table 3). This natural community diversity in turn supports a rich diversity of plant and animal species. Scott Young catalogued an impressive list of plants and animals on and near the IRCR (see Appendix H and Table 4), that includes 73 species of Odonates (dragonflies and damselflies), which reflects the diverse suite of aquatic communities.

***Hemlock – beech – oak – pine forests*** are the most common matrix forest type in the broader region and in the IRCR (the IRCR is 92% upland). Appalachian oak and pine forests increase in abundance southward and toward the coast. Appalachian forests are indicated by hickories, white oak, black oak, pitch pine, and other plants that approach their northern distribution in this part of New Hampshire. Appalachian species become scarce or absent north of the Blue Hills Range, and have a scattered distribution in the IRCR vicinity (abundant only in localized areas). Rocky outcrops and shallow, rocky soils are occasional on bedrock-controlled hills of the broader region, but are much less common than in central and northern New Hampshire, and not well expressed on the IRCR area. Swamps and marshes are common, and open peatlands are occasional in the broader region and on the IRCR properties. Wetland plants with coastal plain distributions are occasional in the area.

**Table 3. Acreages of uplands and wetlands in the Isinglass River Conservation Reserve.**

<b>Habitat/Natural Community</b>	<b>Acreage</b>
UPLANDS TOTAL (92%)	336
Hemlock – beech – oak – forest	303
Dry Appalachian oak forest	6
Early successional: shrub (powerline)	23
Early successional: young forest/sapling	4
WETLANDS TOTAL (8%)	29
Marsh systems	11
Swamps	13
Vernal pools	<1
Wet forest	4
TOTAL	365

**Table 4. Summary of plant and animal species documented on or near the Isinglass River Conservation Reserve (see Appendix H for complete species lists and references).**

<b>TAXA</b>	<b># Species</b>
Amphibians	11
Birds	101
Fish and Freshwater Mussels	12
Invertebrates: butterflies	23
Invertebrates: dragonflies and damselflies	73
Invertebrates: other	45
Mammals	17
Reptiles	8
Plants: woody & most herbaceous	380
Plants: orchids	9
Plants: ferns	23
Plants: horsetails and clubmosses	13
Fungi and lichens	24
TOTAL	739

The importance of the Isinglass River and associated riparian habitat and the influence of topography and soils on plant communities are discussed below, followed by more specific discussion of wetland and upland types of natural communities and habitats.

### **The Isinglass River and Associated Riparian Habitat**

Riparian areas are the natural corridors along rivers and streams influenced by river related processes, such as periodic flooding and channel migration. Although riparian areas cover a relatively small portion of the landscape, they contain a high diversity of aquatic, wetland, and upland species and communities. They are critical to maintaining healthy aquatic habitats, and provide many important ecosystem services. Undisturbed riparian areas prevent erosion, slow and absorb upland runoff and floodwaters, provide habitat structure, and contribute nutrients to waterways.

The IRCR's nearly 9,000 feet of riparian habitat along the Isinglass River is part of the larger stretch of free-flowing Isinglass River that is not bisected by roads or other development. This provides important undisturbed habitat for a range of species that are documented on the Reserve (see Appendix H). Otter, mink, and beaver are regularly observed along the river. Beaver are actively working up and down the river, damming several areas and creating large wetland areas that benefit dozens of other wildlife species. A particularly active beaver area can be viewed from the end of the footpath on the Hanson Lot; that location has an expansive view of the large meadow marsh where two threads of the Isinglass River join back together (Map 4). Moose and black bear also travel the river corridor. These riparian habitats provide perch sites and foraging areas for great blue herons, belted kingfishers, phoebes and other flycatchers, and many songbirds. Fall migrating birds, such as bluebirds, waxwings and thrushes, use riparian corridors, stopping to feed on fruit-bearing vines and shrubs. Red-shouldered hawks, a species of conservation concern in New Hampshire, forage and nest along the Isinglass River.

Gove Environmental Services, Inc (2005) reported a wood turtle sighting in the northeast corner of the Hanson Lot near the Isinglass River and a spotted turtle was reported from the property in 2008 (NHNHB 2009). Both turtles are species of concern in New Hampshire. Wood turtles prefer unpolluted, undisturbed streams and small rivers bordered by dense shrubs and small trees. Underwater root tangles, overhanging banks, and abandoned beaver and muskrat burrows are important overwintering sites for wood turtles (NH Audubon fact sheet). These turtles spend a lot of time moving through riparian habitats searching for mates, food, and resting places. In June, female wood turtles look for a sunny nest site with well-drained soils and sparse vegetation. On the IRCR this could include gravel bars and eroded stream banks along the river, the PSNH utility corridor, or the woods road and associated log landings on the Hanson Lot. Spotted turtles require similar nest sites, but spend much of the year in a variety of shallow wetland areas.

The river, including the stretch along the Isinglass River Conservation Reserve, supports a diverse fish population. Sampling of the river during the 2008 Biothon of the Hanson Lot documented several fish species of conservation concern in New Hampshire including American eel and banded sunfish. The blacknose shiner is found here and in only one other water body in the state. Other fish species along this river length include common shiner, white sucker, fallfish, longnose dace, margined madtom, and redbreast sunfish (see Appendix H) (NH DES 2002).

The Isinglass River drops nearly 150 feet in elevation from the western end of the Bedford property to eastern tip of the Hanson Lot (from ~400 feet to 250 feet elevation). This is a relatively steep section of river as it loses more elevation in less than two miles here than it does in the remaining 14 miles of its length. The irregular boulder terrain through which it flows appears to contribute to the threaded pattern of the river in the IRCR vicinity, with multiple channels evident, including some of relatively recent origin. Rapids and short waterfalls are common along the moderate gradient sections of river between occasional flat stretches of floodplain forest (off property) and marshes. The Bedford land is forested except for an open meadow marsh associated with the nearly 1,200 feet of frontage along the Isinglass River. The river corridor here is an interesting series of active and recently abandoned beaver flowages connected by short stretches of boulder strewn rapids. The river splits into two waterways at the Bedford Lot which join together again at the Hanson Lot. This stretch of the river is used by migrating waterfowl and features a high breeding population of wood ducks.

## Topography and Soils

Both tracts of the IRCR are set on the north facing slopes of the broad northwest-southeast trending ridgeline of Caverly Hill (Map 4). Elevations on the Hanson Lot range from 256 feet to 431 feet and on the Bedford Lot from 361 to 527 feet. The topography and soils of both properties can be broken into three major zones: compact till soils on steep slopes at higher elevations, loose rocky till soils on irregular terrain across most of the properties, and the riparian corridor of the Isinglass River (Table 5 and Map 5). The first zone, consisting of Paxton and Woodbridge compact till soils, are common on the middle and upper slopes of Caverly Hill. Where slope is not prohibitive, Paxton soils are prime farmland. These compact till soils occupy the southern half and higher elevations of the Bedford property, and the extreme southern lobe of the Hanson Lot. A hardpan layer in compact till soils perch water seasonally. Seepage zones are evident at the bases of slopes where compact till soils transition to other soils.

**Table 5. Soil types on the Isinglass River Conservation Reserve**  
(from NRCS Strafford County Soil Survey Data, 2001)

Soil #	Soil Name	Hanson Lot (Acres)	Bedford Lot (Acres)	Drainage	Parent Material
GtD	Gloucester extremely stony fine sandy loam, 8-25% slope	233.8	43.1	Somewhat excessively drained	Glacial till
LrB	Leicester-Ridgebury very stony fine sandy loams, 3 to 8% slope	19.3	-----	Poorly drained	Glacial till
Mp	Muck and peat	11.0	-----	Very poorly drained	Organic
GsC	Gloucester very stony fine sandy loam, 8 to 15% slope	7.5	-----	Somewhat excessively drained	Glacial till
HaB	Hinckley loamy sand, 3 to 8% slope	4.4	-----	Excessively drained	Glacial outwash
PdC	Paxton very stony fine sandy loam, 8 to 15% slope	3.8	25.1	Well drained	Glacial till
PdB	Paxton very stony fine sandy loam, 3 to 8% slope	3.2	-----	Well drained	Glacial till
Sb	Saugatuck loamy sand	1.2	-----	Poorly drained	Organic
WsC	Woodbridge very stony fine sandy loam, 8-15% slope	0.7	-----	Moderately well drained	Glacial till
Wa	Whitman very stony fine sandy loam	0.5	-----	Very poorly drained	Glacial till
GsE	Gloucester very stony fine sandy loam, 25 to 60% slope	0.4	-----	Somewhat excessively drained	Glacial till
LeB	Leicester very stony fine sandy loam, 3 to 8% slope	0.3	-----	Poorly drained	Glacial till
PbB	Paxton fine sandy loam, 0 to 8% slope	0.05	2.1	Well drained	Glacial till
RIB	Ridgebury very stony fine sandy loam, 3 to 8% slope	-----	5.9	Poorly drained	Glacial till
CvD	Charlton extremely stony fine sandy loam, 8 to 25% slopes	-----	3.1	Well drained	Glacial till
PbC	Paxton fine sandy loam, 8 to 15% slope	-----	0.01	Well drained	Glacial till



The northern half of the Bedford property and essentially all of the Hanson Lot are dominated by very rocky, loose glacial till, evident by the presence of lots of variably sized surface stones and boulders. Gloucester soils are the most common type in this second zone. The terrain surface is choppy and complex with frequent low knolls, flat benches, and an irregular drainage network of intermittent and perennial streams that drain to the Isinglass River (Map 4). Stony, poorly drained soils (including Leicester and Ridgbury series) occupy some of these smaller drainageways.

The riparian zone along the Isinglass River contains the rocky entrenchment of the river itself, its irregular floodplain, and portions of the surrounding lowland within which the river is still apparently modifying its course. Muck and peat soil occurs on the low gradient section of river along the northwest side of the Hanson Lot, and in smaller patches included within other soil type map units (too small to map).

## Wetlands

The Bedford and Hanson Lots collectively contain a diverse range of wetland types, including pond and stream, aquatic beds, emergent marshes, meadow marshes, shrub thickets, fens, swamps, and vernal pools (Map 3). The wetlands are discussed in two broad groups below: 1) Marsh Systems; and 2) Swamps, Vernal Pools, and Wet Forests. Classification of wetland and upland natural communities follows Sperduto and Nichols (2004) or modifications of that classification as reflected on the NH Natural Heritage Bureau website ([www.nhnaturalheritage.org](http://www.nhnaturalheritage.org)). Table 6 describes the relationship between natural communities and soil types on the Hanson and Bedford Lots.

**Table 6. Relationships between soil types and natural communities on the Hanson and Bedford Lots. Only soils with two or more acres on the properties are listed, in order of total acreage.**

Soil #	Soil Name	Drainage	Parent Material	Primary Natural Community
GtD, GsC, GsE	Gloucester ext./very stony sandy loams	Somewhat excessively drained	Glacial till	Hemlock – beech – oak – pine forest Dry Appalachian oak forest (muck/peat basin wetland inclusions common)
LrB, LeB, RIB	Leicester-Ridgebury, Leicester, and Ridgebury very stony fine sandy loams	Poorly drained	Glacial till	Rich swamps
PdB,C PbB,C	Paxton very stony fine sandy loam and fine sandy loams	Well drained	Glacial till	Hemlock – beech – oak – pine forest, compact till variant
Mp	Muck and peat	Very poorly drained	Organic	Marsh system
HaB	Hinckley loamy sand	Excessively drained	Glacial outwash	Hemlock – beech – oak – pine forest
CvD	Charlton extremely stony fine sandy loam	Well drained	Glacial till	Hemlock – beech – oak – pine forest

## Marsh Systems

Marshes on the properties include various combinations of natural communities, including open water (ponds and streams), aquatic beds, emergent marshes, meadow marshes, shrub thickets, and swamps adjacent to upland forest. These groups of communities occur along a wet to dry gradient, and are collectively referred to in abbreviated form here as “marsh systems” (NHNHB refers to them as “emergent marsh – shrub swamp systems”). One to several feet of permanent water characterizes aquatic bed communities; semi-permanent, shallow surface water is present in emergent marshes; and water levels drop below the ground surface during the growing season in meadow marshes, shrub thickets, and swamps. Small patches of fens occur in hydrologically stagnant parts of some marshes or where floating peat mats form. The particular combination of communities within each patch of marsh depends on basin morphology, stream or river size (if present), status of beaver impoundments and activity, and the related range of hydrologic conditions present in the particular marsh.

The largest and most diverse marsh occurs on low-gradient sections of the Isinglass River on the north side of both properties. These marsh systems are directly influenced by overbank flow from the river. The marsh system on the Hanson Lot includes the wetland area on the south side of the main course of the Isinglass River. There are three primary communities in this marsh system at the present time. They are, in decreasing order of abundance, **tall graminoid meadow marsh**, **mixed tall graminoid - scrub-shrub marsh**, and **alder - dogwood - arrowwood alluvial thicket**. *Calamagrostis canadensis* var. *canadensis* (robust bluejoint) is the dominant herb in the first two communities. Prominent shrubs in the latter two communities include *Spiraea alba* (eastern meadowsweet), *Alnus incana* (speckled alder), *Ilex verticillata* (winterberry), *Cornus amomum* (southeastern silky dogwood), *Viburnum dentatum* (northern arrowwood), and *Salix* spp. (willows). There are small patches of **short graminoid - forb meadow marsh/mud flat** on channel backwater mudflats exposed by water drawdown during periods when beavers are less active. *Leersia oryzoides* (rice cutgrass) and *Eleocharis* spp. (spikerushes), and annual forbs are common in this community. The combination and extent of individual communities varies over time in response to beaver activity.

Smaller patches of marsh are associated with a beaver impoundment and pond in the west central portion of the Hanson Lot, which drains northwest to the Isinglass River, and with other drainageways that rise in the interior parts of the property and drain southeast to the river. The ponded wetland consists mostly of open water with scattered aquatic bed and emergent marsh vegetation, including *Nymphaea odorata* (white waterlily) and *Sparganium americanum* (lesser bur-reed). A floating fen island occupies about one acre in the pond. It is inaccessible, but consists of a floating mat of peat moss (*Sphagnum* spp.) with various short sedges including *Eriophorum virginicum* (tawny cotton-grass), *Dulichium arundinaceum* (three-way sedge), and *Carex* cf. *echinata* (prickly sedge). Based on these observations and supplemental information from Scott Young, this is probably a **large cranberry - short sedge moss lawn** community. On the edges of the floating mat adjacent to the pond water, the community shifts to a **floating marshy peat mat** community.

Just south of the beaver pond above a small dam, there is a **sedge meadow marsh** dominated by *Carex utriculata* (bottle-shaped sedge), *Scirpus cyperinus* (woolly bulrush), and *Sparganium americanum* (lesser bur-reed). A small patch of **cattail marsh** also occurs in this wetland. An approximately 15 year old hemlock sapling on the beaver dam separating the pond from the marsh to the south, and the advanced decomposition of pine snags around the margin of the pond suggest that beavers originally dammed the wetland about 15-20 years ago. On its way to the Isinglass River, the stream that drains north over the larger dam at the northern side of the pond runs through a patch of **tall graminoid meadow marsh** with sedges and robust bluejoint.

## Swamps, Vernal Pools, and Wet Forests

There are several types of swamps on the Bedford and Hanson Lots, numerous vernal pools, and one area of wet forest. The swamps can be broken into two broad types: rich swamps and poor swamps. *Rich swamps* are relatively enriched with nutrients from a combination of upland runoff and groundwater seepage, as well as fluctuating annual water levels. They occur in basins drained by intermittent or perennial streams and near-surface flow. Rich swamps contain a relatively high diversity of plants. *Poor swamps* have limited runoff, seepage, and smaller annual water level fluctuations, which limit nutrient availability to plants. They occur in isolated pocket basins among upland forests with no or only limited outflow. Plant diversity is lower in poor swamps than rich swamps. *Vernal pools* are depressions with seasonal pools of water that typically draw down below the surface during the growing season. Because poor swamps and vernal pools both occupy isolated depressions in close proximity to one another, they are discussed together below under the heading “poor basin wetlands.” *Wet forests* have a seasonally high water table and are transitional between hydric swamps and upland forest in terms of species composition and soil characteristics.

Rich swamps: There are two types of rich swamps on the properties: *red maple - sensitive fern swamp* and *red maple - black ash swamp*. *Red maple - sensitive fern swamps* occur along drainageways of small intermittent and perennial streams on both properties. This is a relatively common type of red maple swamp. Characteristic plants include *Acer rubrum* (red maple), *Ilex verticillata* (winterberry), *Alnus incana* (speckled alder), and *Onoclea sensibilis* (sensitive fern). *Betula alleghaniensis* (yellow birch), *Tsuga canadensis* (hemlock), *Pinus strobus* (white pine) are occasional. Herbaceous plant diversity is greater than in poor swamps, including plants such as *Chrysosplenium americanum* (golden saxifrage), *Cinna latifolia* (drooping woodreed), and various manna grasses (*Glyceria* spp.). Some of these swamps transition rapidly to patches of shrub thicket or meadow marsh in wetter portions of the wetland basins that they occupy.

*Red maple - black ash swamps* occur in two headwater basins along the southern edge of the Hanson Lot at the base of the drumlin slope. Seepage water perched by Paxton soils on the slopes above feed into the slightly-sloping swamps here. This community is less common statewide than *red maple - sensitive fern swamp*. *Red maple - black ash swamps* differ by the presence of *Fraxinus nigra* (black ash), more constant groundwater flow, and by the abundance of reliable seepage-indicators such as *Chrysosplenium americanum* (golden saxifrage), *Caltha palustris* (marsh marigold), and *Lindera benzoin* (northern spicebush). Golden saxifrage is abundant in the larger swamp. Black ash is frequent, reaching 13” in diameter.

Poor basin wetlands: *black gum - red maple basin swamps*, *red maple - Sphagnum basin swamp*, and *vernal pools* are scattered throughout the central part of the Hanson Lot. The Gloucester soils that dominate the land surface here were formed from loose, rocky till dumped in place by the glaciers. Boulders of all sizes are a striking feature of the “choppy” up-and-down topography here, with dozens of isolated pockets that contain the wetlands. Many of these are smaller than one acre, although a few of the swamps exceed this size. *Nyssa sylvatica* (black gum) trees are a prominent feature in many of these basins. All of these basin wetland types are nutrient poor and contain a lower diversity of plants than rich swamps. *Acer rubrum* (red maple), *Tsuga canadensis* (hemlock), *Vaccinium corymbosum* (highbush blueberry), *Ilex verticillata* (winterberry), *Osmunda cinnamomea* (cinnamon fern), and peat mosses (*Sphagnum* spp.) are the most common plants in both of the swamp communities.

*Black gum - red maple basin swamps* occupied five basins and a portion of three other basins comprised mostly of *red maple - Sphagnum basin swamp*. Individual black gum trees were also observed around the margin of several of the vernal pools. More than 50 black gum trees were tallied in the area ranging up to 58cm dbh (23”). Trees of this size typically exceed 400 years of age, based on a dbh-age

relationship established by the NH Natural Heritage Bureau. The black gum trees collectively exhibited a broad size class distribution, with 35 trees less than 12" dbh (30 cm), 18 trees 12 -16" dbh, and 17 trees 16-24" dbh. More black gum could undoubtedly be discovered with additional search effort. Black gum is by no means rare in New Hampshire, but swamps with large concentrations are. This example contains enough black gum to be considered at least locally significant, and warrants consideration by the NH Natural Heritage Bureau for exemplary natural community status.

Vernal Pools: Gove Environmental Services, Inc. conducted a survey of vernal pools on the Hanson Lot in 2006 as part of the subdivision application process. They detected wood frog and/or spotted salamander egg masses in the 22 vernal pools surveyed (Gove 2006). Vernal pools were common in the vicinity of black gum and red maple basin swamps, including the eight indicated on Map 4. Most of the vernal pools observed were small (0.05 acres or smaller) and little woody or herbaceous wetland vegetation around the margins. A few were larger and supported common marsh and shrub species around their edges. Some of the basin swamps function as vernal pools as well and may have been included in the Gove assessment.

Wet forests: the isolated parcel of the Bedford Lot contains a *hemlock - cinnamon fern forest* on the low terrace along the Isinglass River. A deep organic rich surface layer over the stony soils indicates a seasonally high water table. The terrace may flood temporarily from overbank flow from the river at very high water. This occurrence contained a mix of hemlock, red oak, and red maple, indicating some similarity to the hardwood dominated *red maple - red oak - cinnamon fern forest*. Both types occur on soils with a seasonally high water table and differ primarily by conifer vs. hardwood dominance.

## **Upland Forests and Early Successional Habitat**

### **Hemlock – Beech – Oak - Pine Forest**

*Hemlock – beech – oak - pine forest* is the dominant forest type on the properties, consisting of mixes of hemlock, beech, red oak, white pine, and red maple (Map 3). White oak and shagbark hickory are occasionally scattered into the mix, but are not abundant enough in most areas to indicate a shift to *dry Appalachian oak forest*. *Hemlock – beech – oak – pine forest* occurs primarily on Gloucester, Hinckley, and Paxton soils. This forest was cut extensively in 1998 on the Hanson Lot, removing most of the large 60-100 year old white pines and substantial basal area of other species.

There are two main variants of this forest type on the property: a typic variant and compact till variant. The typic variant occurs primarily on Gloucester extremely to very stony soils and covers most of the area on both properties. Overstory composition varies with site conditions and cutting history. In many areas, hemlock is abundant or dominant in the overstory or understory (or both), including much of the forest along the immediate river corridor and those on steep slopes or in extremely boulder areas. Most of these areas are not pure *hemlock forests* as other tree species are mixed in, in lesser amounts. More even mixes of various combinations of hemlock, white pine, red oak, beech, red maple, and black birch are common but less extensive in area. Red oak is the most abundant tree in the overstory in a few areas. Surface boulders are abundant and characteristic of this forest over much of the property.

The compact till variant occurs on Paxton soils, which have a hardpan at 18-24" depth. The hardpan perches the water table seasonally. Hardwood mixes are more common on Paxton sites, and seepage zones often form at the lower boundary of Paxton soils where they meet adjacent soil units. Red oak, red maple, beech, black birch, and white ash were common in the example on the Bedford property. Shagbark hickory, white oak, white pine, and hemlock are present in relatively low amounts. This variant extends onto the gentle slope beyond the mapped extent of Paxton soils. Paxton soils can also support semi-rich mesic forest types, although none were observed at the time of survey.

Forest maturity differs on the two properties. Relatively few large trees (greater than 16") remain in the overstory on the Hanson Lot following the harvest in 1998. Most remnant overstory trees are in the 6-14" dbh range. Larger remnant trees on the Hanson property occur near or along the border of the Isinglass River, including a 40" dbh hemlock. Birches, pin cherry, and quaking aspen are prominent in the larger patch and clear cut areas, and a mixture of sprout hardwoods and advanced hemlock regeneration are common in smaller openings. Large snags and downed coarse woody material are sparse. Overall, larger trees, mature forest, and coarse woody material are more common on the Bedford Lot.

The extensive, unfragmented forest on the IRCR and surrounding lands supports many "interior forest birds" such as scarlet tanager, ovenbird, wood thrush, veery, hermit thrush, black-and-white warbler, black-throated-green warbler, and northern goshawk. As noted above, the 1998 logging removed most of the mature, large trees that are needed as nest sites and food sources for some species including goshawk, pileated woodpecker, great-crested flycatcher, and barred owl. The forest liquidation also removed the potential for large dead and fallen trees and branches for a long time into the future.

#### *Pre-settlement Forests*

Since the Conservation Easement Deeds explicitly include as a stewardship objective managing forests to reflect "pre-settlement" conditions, it is important to understand what this means. The pre-settlement condition of the forests of the region varied with disturbance history and site conditions. On average the forests were older, more mature, contained a higher proportion of late successional versus early successional species, and were governed by natural forest dynamics and landscape-scale ecosystem processes. In general, disturbances to the forest consisted of relatively frequent small-scale treefalls (creating small canopy gaps) and infrequent large-scale disturbances that affected larger areas of the landscape (such as hurricanes and tornados), and infrequent fire (generally > 150-200 year return intervals, except on fire prone sites).

Pre-settlement forests in general had greater structural diversity and higher frequency of old forest conditions, including old trees, snags, and coarse woody material in various stages of decay. This does not mean that all forest stands had these characteristics at the same time, but at a landscape scale conditions were generally more mature and variable than they are today. Agriculture and harvesting activities since time of settlement have reduced average tree ages, reduced the abundance of mature shade-tolerant species such as beech, hemlock, and red spruce, and increased the abundance of shade intolerant hardwoods such as red maple and various birches.

#### **Dry Appalachian Oak Forest**

A small patch of dry Appalachian oak forest occurs on the eastern side of the Hanson Lot east of the powerline (Map 3). This forest type is indicated by the abundance of white oak and hickory. These trees are referred to as "Appalachian" species because their geographic distribution is centered in the Appalachian region south and west of New England. Both species approach their northeastern range limit in southern and southeastern New Hampshire. White oak is the most abundant tree here (~25% cover). Other common trees in the overstory include red maple, shagbark hickory, red oak, and beech. Hemlock, white pine, and beech are common in the subcanopy. Historically, occasional fire has played a role in the maintenance of this forest type regionally. Fire perpetuates oaks and other fire-tolerant species. In the absence of fire at this site, long term succession may lead to an increase in the abundance of fire-intolerant species such as beech, hemlock, and red maple. Overstory trees average 10-12" dbh, with larger trees reaching 14" dbh. A single 40" dbh white oak tree was present along the property boundary at the northeast end of this forest patch.

## **Early Successional Habitats**

*Early successional habitat* includes grasslands, shrublands and old fields, young regenerating forests, and forest openings. This habitat is by its nature dynamic and transitional. The proportion of the landscape in an early successional stage varies over time depending on natural and human disturbances. Weather events such as hurricanes, ice storms, and tornadoes create large scale openings in the forest. The 1998 liquidation harvest of the Hanson Lot created extensive areas of young, regenerating forest. Although it was not created or planned with long-term stewardship in mind, it did create habitat conditions that benefit some wildlife species, such as snowshoe hare, ruffed grouse, white-tailed deer, and moose.

Wind and tree pathogens (such as fungi and insect infestation) are natural disturbance agents that cause single trees to fall, creating small openings in the forest. Beavers and fire also set back mature forest to a younger age or to shrub or herbaceous cover. Early successional habitat, if undisturbed, will naturally succeed toward mature forest. Other areas – such as grasslands or log landings -- are deliberately maintained as “permanent openings.” On the Hanson Lot, the PSNH utility corridor is maintained in an early successional shrub stage by the utility company (Map 3). Field sparrow, prairie warbler, rufous-sided towhee, gray catbird, and chestnut-sided warbler occur in this shrub community. The woods road and associated log landings on the Hanson Lot are currently in a young forest/sapling stage (Map 3) that benefits ruffed grouse, snowshoe hare, small mammals, and some migratory songbirds such as chestnut-sided warbler.

Many wildlife species associated with early successional habitats have declined as a result of natural succession or human development since the peak of farming in the mid-1800s. Lands cleared for farms created habitat for open country and grassland birds. Subsequent farm abandonment led to the growth of young hardwood stands beneficial to a different suite of wildlife; this early successional habitat peaked in the 1930s. Since then, forests have naturally reclaimed much of the landscape once cleared by settlers. Historically (pre-settlement) the amount of early successional habitat across a largely forested New England varied depending on variations in natural disturbance patterns. These disturbances (e.g., wind, ice, fire) may have maintained about 1-3% of the inland northern hardwoods forests, >10% of the coastal pine-oak barrens, and perhaps 7% of spruce swamp and spruce flat habitats in early successional habitat (Lorimer and White 2003). The headwaters of the Isinglass River likely sustained between 3-10% early successional habitat, but this was probably highly variable over space and time.

Forest-dwelling animals such as black bear, white-tailed deer, wild turkey, and many birds also benefit from forest openings, where they forage for insects, berries, and other food sources. Dense young growth, which comes in after a disturbance, creates thick cover for squirrels, rabbits, hares, and small animals that are prey for other animals such as weasel, coyote, bobcat, and fisher. Natural disturbances will continue to create some of this habitat condition. There is ecological justification for both creating and maintaining early successional habitat as well as for maintaining areas of unfragmented, interior mature forest conditions where natural disturbance dynamics prevail. The percentage and juxtaposition of early successional conditions within or adjacent to mature forest is a management decision that is discussed in Chapter 4.

## **Wildlife Habitat Features**

Wildlife require food, water, cover, and space to live and reproduce--collectively known as their *habitat*. Each species has unique habitat requirements, and the presence of a given species in an area varies depending on the availability of the habitat features that they depend on. Wildlife food resources include aquatic and upland plants, fruits, seeds and nuts, insects and other animals, and nectar. All wildlife require water, almost daily, yet aquatic organisms clearly depend on it more than upland species. Cover provides

protection from weather and predators and sites for nesting, resting, travel, and other activities. The juxtaposition of food, water, and cover determines the wildlife community that occurs in a given area.

An area with many different kinds of food, water, and cover typically supports a greater diversity of wildlife. This reflects *habitat structure*, an important concept in understanding the distribution and abundance of wildlife. The components of habitat structure and their presence or lack thereof on the Isinglass River Conservation Reserve are discussed below. Although the physical life forms of plants are important to many wildlife species (trees, shrubs, herbs), the composition of individual plant species can also be important, particularly among invertebrates since many have specific relationships with particular plant species.

### ***Horizontal vegetation diversity***

This refers to the horizontal arrangement of different plants and natural communities (including type and age) in a given area. Areas with aquatic habitats and non-forest habitats such as openings as well as forest are more horizontally diverse than an area that is just forested. For instance, a relatively flat 1,000-acre mature hardwood forest has less horizontal vegetation diversity than another 1,000-acre habitat with diverse topography that supports a mix of emergent wetland, shrubs, and upland mixed forest. Likewise, a 500-acre forest that has a mix of tree ages that includes a grassy opening, young forest, saplings, and mature, old trees is more diverse than a 500-acre forest with just sapling/pole-sized trees. A wetland that has concentric rings of open water, emergent marsh, shrub thicket, and tall trees is more horizontally diverse than an open water pond with a sandy shore that extends to lawn.

Looking at the IRCR in its entirety, the horizontal vegetation diversity includes the following different habitats:

- Hemlock – beech – oak – pine forest in various stages of succession (more mature on Bedford; regenerating after heavy logging on Hanson)
- Patch of dry Appalachian oak forest
- Wetland basins such as black gum and black ash swamps, vernal pools
- Major river corridor, associated wetland complexes, and stream drainages
- Pockets of young sapling forest
- Shrubland along PSNH utility corridor

Habitat management and natural disturbances are the two primary factors that affect horizontal diversity. Beaver are a major driver, creating diversity in the wetland communities along the Isinglass River. The powerline corridor and the regular maintenance of the corridor by the utility company add to this diversity. Maximizing horizontal diversity everywhere is not typically the goal. Extensive areas of mature forest are important to some wildlife species. And other areas may be sensitive to disturbance, such as certain types of wetlands. As noted earlier, the juxtaposition of various habitat components is important and assessing the broader landscape can help determine if horizontal diversity should be enhanced through active management.

### ***Vertical vegetation diversity***

Vertical diversity refers to the extent of layering within a forest or other habitat. Layering within a forest includes the arrangement of ground cover (lichens, moss, ferns, and herbaceous plants), vines and shrubs, and trees (including sizes and ages). A greater variety of vertical layers creates a greater diversity of habitats, which often leads to a greater diversity of wildlife. These layers provide cover from predators, nest and den sites, foraging surfaces, food sources, shade, and more. Vertebrate wildlife typically responds more to vegetation structure than to the presence of specific plant species. Vertical and horizontal structure that is varied, lush, and “messy” is a boon to wildlife. Forests with little ground cover, dead wood, shrubs, and understory have fewer wildlife species.

This region, like most parts of New England, is still recovering from the period of intense agriculture and subsequent natural reforestation. The recent logging on the Hanson Lot reduced the vertical diversity by removing most of the overstory. A natural disturbance such as a single tree fall occurs fairly frequently and affects a small area. Larger disturbances, such as ice storms, have more widespread effects. Unlike more developed areas, beavers are less restricted in their movements in this region and therefore are important creators of natural disturbance. This mix of natural and human disturbance, some planned, some not, creates vertical diversity. Active management, through planned selective habitat management or forestry, can increase vertical diversity in desired locations.

### ***Food resources***

The availability of food resources for wildlife is a key component of their habitat needs, and often varies seasonally. Breeding birds depend on a flush of insects to feed their young nestlings, while later in summer and into fall and winter they switch to berries, nuts, and seeds. Deer, moose, and other browsers rely on herbaceous vegetation during the growing season and woody growth in winter. Larger mammals such as coyote, fox, and fisher prey on smaller animals, and eat fruits as well when available. Seeds are favorites of squirrels, nuthatches, siskins, mice, and voles. Hawks and owls need a healthy population of red squirrels, snowshoe hare, and other small mammals.

Fruits, nuts, and seeds from woody plants that wildlife eat are collectively known as “mast.” Hard mast includes the array of nuts and seeds, which are typically high in fat, carbohydrates, and protein. These food sources are both high in energy content and available into the winter. Soft mast includes fruits and berries such as cherries, dogwoods, blueberries, winterberry, grapes, and the fleshy fruits of other trees, shrubs, and vines. Soft mast is more perishable and is often high in sugar, vitamins, and carbohydrates. These fruits are a source of moisture for wildlife during drought years, and are a crucial energy source for some migrating songbirds.

A diversity of hard and soft mast producing trees, shrubs, and vines is important. Different mast species are available at different times of year, which is critical to wildlife. Also, some species, such as oak only produce heavy acorn crops every 2 to 10 years, and this varies among oak species. Peak acorn production occurs when red oak are 19-22 inches in diameter at breast height (dbh); white oak at 24-30 inches dbh. White oak acorns have less tannin and hence are more palatable to wildlife than red or black oak acorns. Birches, maples, ashes, and basswood are also used by seed-eating wildlife (New Hampshire Forest Sustainability Standards Work Team 1997).

The IRCR has a diverse mix of hard and soft mast. Red oak is the most common mast tree. American beech is also a valuable hard mast tree, and is abundant in some stands within the area, and will likely increase in abundance through natural succession. The white oak stand east of the powerline is a key food resource. The area has a healthy supply of white pine and hemlock, a source of seeds for some birds and mammals. Soft mast species include highbush blueberry, viburnums, winterberry, elderberry, raspberries; these are most abundant around the larger wetland systems and along the powerline. Emergent marshes and shrubby marsh edges are also habitats that provide abundant insects. The diversity of dragonflies and damselflies provides further evidence of a healthy insect population.

### ***Cavity and other nest trees***

Nearly two-dozen birds and mammals depend on tree cavities for nesting, roosting, or denning. Bats roost and the brown creeper nests under the loose bark of standing trees. These species require a range of cavity tree size classes and rely on a mix of dead or partially dead standing trees (called “snags”) as well as live trees with cavities. Woodpeckers, chickadees, and nuthatches are primary excavators (i.e., they make the holes), while others use existing holes.



Again, because the heavy logging on the Hanson Lot, the IRCR is more limited in the availability of cavity trees. Some of the wildlife species found on the Reserve and their required tree cavity sizes measured as diameter at breast height are listed below (Tubbs et al. 1986):

<8"	6-12"	12-18"
black-capped chickadee	hairy woodpecker	great-crested flycatcher
downy woodpecker	red-breasted nuthatch	northern flicker
tufted titmouse	white-breasted nuthatch	
winter wren	brown creeper	
<hr/>		
>18"		
wood duck	fisher	
pileated woodpecker	raccoon	
gray squirrel	barred owl	
red squirrel	porcupine	

Several species of breeding hawks and owls (“raptors”) with large home ranges have been documented in or near the IRCR. These include northern goshawk, Cooper’s hawk, broad-winged hawk, red-tailed hawk, and red-shouldered hawk. These birds require nest sites that are limited in our forested landscapes because of past land uses. Because of their poor form, raptor nest trees are often removed during timber stand improvements or go unnoticed during logging operations. Hawks and owls are often sensitive to human disturbance and habitat changes near nest sites during the breeding season, which extends from mid-February to July (Mariko Yamasaki, U.S. Forest Service, personal communication).

Northern goshawks build large stick nests in mature forests on large white pine branches near the trunk and in forked branches of mature hardwoods. Broad-winged and red-tailed hawks nest near forest openings or field edges, while red-shouldered hawks nest near water or wetlands. Some of these potential nest trees exist on the Bedford property, while they are nearly absent on the Hanson Lot.

***Dead and down woody material***

Dead and down woody material (sometimes called “coarse woody debris”) on the forest floor is important for many reasons. Woody debris in various stages of decay includes logs, stumps, branches, upturned roots, and tree falls. These features provide wildlife habitat, serve as nurse logs for regenerating plants, and contribute to nutrient cycling. As with cavity trees, the larger the fallen log or stump the greater the biodiversity value. Decaying wood supports many insects and other invertebrates, which are food sources for shrews, woodpeckers, and black bears, and habitat for a variety of bryophytes, lichens, and fungi. Snakes, fisher, and weasels hunt among the woody debris. Many species including mice, voles, salamanders, snakes, chipmunks, red squirrels, weasels, black bear use coarse woody debris for cover, den sites, and escape areas. The winter wren nests in upturned tree roots. Mosses, fungi, and lichen are often associated with decaying wood. Fallen logs and other woody debris are also important in aquatic environments. Turtles and waterfowl bask on this wood and fish find cover in woody debris.

The IRCR is low in the quantity and distribution of large coarse woody debris, similar to the lack of cavity trees. This is not atypical in New England forests that are recovering from past agriculture and intensive logging. The size of coarse woody debris is related to past land use since large trees and dying trees are often removed before they reach the stage of decaying on the ground. The amount and size of woody debris is naturally increasing as New Hampshire forests are maturing, assuming not all is removed.

## **Rare Plants and Animals and Exemplary Natural Communities**

The New Hampshire Natural Heritage Bureau finds, tracks, and facilitates the protection of rare plants and exemplary natural communities. They also maintain information on rare wildlife in cooperation with the NH Fish and Game Department. Natural Heritage defines a natural community as “recurring assemblages of plants and animals found in particular physical environments.” Each type of natural community has a unique set of environmental conditions that support certain species adapted to those conditions. Exemplary natural communities include nearly all examples of rare types and high-quality examples of common types (Sperduto and Nichols 2004).

The NHNHB database has only one rare species reported for the Isinglass River Conservation Reserve, the state threatened spotted turtle (See Appendices F and G). A wood turtle, a state species of concern, was documented on the Hanson Lot, although not reported to NHNHB. No rare plants or exemplary natural communities are reported for the Reserve, however data collected in 2009 on the red maple – black gum swamp will be submitted to Natural Heritage for consideration for exemplary natural community status, and several plant collections by Scott Young require additional identification work. Any rare plants discovered from these collections will be submitted to the NHNHB for verification. The lack of rare species does not diminish the Reserve’s ecological significance, given the breadth of natural communities and the documented list of species (Appendix H).

## **Environmental Health**

Environmental health, or *ecological integrity*, can be measured in several ways. At a landscape scale, the size (acreage) of the undeveloped and unfragmented land and degree to which ecological processes operate without interruption have an important relationship to the ecological integrity of component natural communities and habitats. Examples of metrics useful for evaluating ecological integrity include the quality and quantity of surface waters, amount of development, degree of habitat fragmentation, degree of erosion and runoff, amount of impervious surface, presence of forest pests or invasive species, and percent cover of native species. Some environmental stressors, such as mercury deposition, air pollution, extreme weather events and climate change, are extensive in geographic scope and largely outside the influence of land stewardship decisions on individual ownerships.

The environmental health of the Isinglass River Conservation Reserve appears to be quite good. This stems, in part, from its location high in the Isinglass River watershed that is relatively undeveloped and unfragmented, with little impervious surface (paved roads, houses, other buildings). One negative impact to environmental health on the Reserve is the presence of invasive plant species that degrades native habitats. Another potential concern is the proximity to the old landfill. These issues are discussed below.

## ***Environmental Hazards***

Abenaki Environmental Services of Bristol, NH completed a Phase I Environmental Site Assessment in 2006 on the Isinglass River parcel for the Trust for Public Land, when it was still owned by Boulders at Strafford, LLC. The purpose of a Phase I study is to assess whether *recognized environmental conditions* exist on the property. These are defined as “the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, ground water or surface water of the property.” Abenaki Environmental Services (2006) found no such conditions to exist on the property.

## *Water Quality*

The Strafford Landfill on Ricky Nelson Road across from the Bedford Lot was closed and capped in December 2002. This is now the site of the transfer station. Water quality monitoring at the landfill revealed elevated levels of manganese and arsenic and a groundwater flow from this site is to the northwest, towards the Isinglass River. The potential to impact The Boulders [Hanson Lot] groundwater was thought to be low and there was uncertainty about whether the manganese and arsenic derives from natural sources or the landfill (Abenaki Environmental Services, Inc 2006).

The Town installed a monitoring well in the southwestern corner of the Bedford property across the street from the landfill entrance in 2004 (Map 2). Results from monitoring wells on the landfill site had indicated that a portion of the groundwater plume from the landfill was migrating in the direction of this corner of the Bedford property. From a groundwater quality perspective, the issue was the migration of dissolved manganese in concentrations that were above the state established drinking water levels. The manganese does not originate in the landfill itself, but is leached from the soil, where it is naturally occurring, due to biochemical reactions with groundwater impacted by the landfill. Laboratory test results from the Bedford monitoring well indicated levels of manganese above the state drinking water standard of 0.84 milligrams per liter for the first few years of monitoring. Since that time (2006), the levels have dropped below the standard and the water in the Bedford well now meets drinking water standards. The well is being tested twice per year for pH, specific conductance, arsenic, iron, manganese, chloride, nitrate, total Kjeldahl nitrogen, and chemical oxygen demand; and periodically for additional metals and volatile organic compounds (Robert Grillo, CMA Engineers, Inc., personal communication).

Baseline water quality of the Isinglass River is also collected regularly. Ten or more volunteers collect water quality samples from 22 sampling stations on the Isinglass River as part of the NH DES Volunteer River Assessment Program (VRAP). Volunteers measure the following parameters at each sampling station: dissolved oxygen, pH, turbidity, specific conductance, water, and temperature. In the lab, NH DES analyzes collected water samples for *E. coli* and phosphorus.

A copy of the NH VRAP 2009 Isinglass River Water Quality Report is available at [http://des.nh.gov/organization/divisions/water/wmb/vrap/isinglass/documents/isg\\_data09.pdf](http://des.nh.gov/organization/divisions/water/wmb/vrap/isinglass/documents/isg_data09.pdf). The two nearest stations to the IRCR are station #12-ISG approximately 2 miles upstream at the outlet to Bow Lake and station #08-ISG, approximately 2.5 miles downstream at the Route 126 Bridge in Barrington. In general, the results indicate that the two sampling sites meet or are close to the minimum water quality standards for a Class B river. In 2008, the *E. coli* (bacteria) counts at the Barrington bridge were elevated and above the minimum standards, but met the standards in 2009. Elevated *E. coli* levels can be caused by several factors such as limited rainfall, low river flows, presence of wildlife, or septic systems (NH DES 2010).

Each year a set of biological data is collected by volunteers at a handful of sampling stations along the Isinglass River. This Volunteer Biological Assessment Program (VBAP) samples for mayfly, stonefly and dragonfly nymphs, caddisfly and midge larvae, several aquatic beetles, and aquatic worms. Volunteers sampled the River near the bridge on Pig Lane in 2007 (station #10-ISG). Volunteers also gathered data on the condition of the river bank and erosion. In 2007, they noted slight erosion on river banks due to foot traffic. The “biotic score” from this VBAP sampling was considered “good” by NHDES. A copy of the 2007 biological data is available at [http://des.nh.gov/organization/divisions/water/wmb/vrap/isinglass/documents/data\\_report2007.pdf](http://des.nh.gov/organization/divisions/water/wmb/vrap/isinglass/documents/data_report2007.pdf) -- see Appendix D within the water quality report (NHDES 2008).

## ***Erosion***

Given the relative lack of existing trails on the Isinglass River Conservation Reserve, erosion is a minor problem. However, the VBAP monitors noted some bank erosion along the river, thought to be caused by foot traffic. Some evidence of erosion is noted along the gravel woods road and along the PSNH utility corridor where all-terrain vehicle activity is highest.

## ***Invasive Species***

An "invasive species" is defined as a species that is non-native (or alien) to the ecosystem under consideration and whose introduction causes or is likely to cause economic or environmental harm or harm to human health (National Invasive Species Council 2001). One report estimates the economic cost of invasive species in the U.S. at \$137 billion every year (Pimentel et al. 2000). Up to 46% of the plants and animals federally listed as endangered species have been negatively impacted by invasive species (Wilcove et al. 1998, National Invasive Species Council 2001).

Invasive species typically have certain traits that give them an advantage over most native species. These traits include producing many offspring, early and rapid development, and being adaptable and highly tolerant of many environmental conditions. Studies show that invasives can reduce natural diversity, impact endangered or threatened species, diminish wildlife habitat, affect water quality, stress and reduce forest and crop production, damage personal property, and cause health problems.

The New Hampshire Invasive Species Act states that *"no person shall knowingly collect, transport, sell, distribute, propagate or transplant any living or viable portion of any listed prohibited invasive plant species including all of their cultivars, varieties, and specified hybrids."* Appendix J includes the list of prohibited species referenced in this Act. For more information on New Hampshire's invasive species program see [http://www.nh.gov/agric/divisions/plant\\_industry/plants\\_insects.htm](http://www.nh.gov/agric/divisions/plant_industry/plants_insects.htm) and [http://www.nh.gov/agric/divisions/plant\\_industry/documents/booklet.pdf](http://www.nh.gov/agric/divisions/plant_industry/documents/booklet.pdf).

Invasive plant species are transported by humans and wildlife; many were planted purposefully in the past for wildlife, erosion control, or as landscape plantings. Others came in via international commerce. Many invasive plants appear first in disturbed areas such as along roadsides and trails, in gravel pits, edges of fields, and river corridors. They can be moved along roadways by mowing, plowing or other roadwork.

The Isinglass River Conservation Reserve is relatively free of invasive plant species, although there are pockets in disturbed areas (see Table 7), which should be addressed. Invasive plants grow along the PSNH utility corridor and are also found in the old orchard and down the slope in the southern part of the Hanson Lot bordering New Bow Lake Road. A few patches are also found along the Isinglass River. Invasive plants are also on adjacent properties including along Pig Lane and on at least one property south of the Hanson Lot, where the PSNH utility line crosses.

**Table 7. Invasive plant species on the Isinglass River Conservation Reserve.**

<b>Common Name</b>	<b>Scientific Name</b>
Autumn olive	<i>Elaeagnus umbellata</i>
Bush honeysuckles	<i>Lonicera spp.</i>
Common reed	<i>Phragmites australis</i>
Garlic mustard	<i>Alliaria petiolata</i>
Glossy buckthorn	<i>Frangula alnus</i>
Japanese barberry	<i>Berberis thunbergii</i>
Multiflora rose	<i>Rosa multiflora</i>
Oriental bittersweet	<i>Celastrus orbiculatus</i>
Purple loosestrife	<i>Lythrum salicaria</i>

## **Chapter 3            Public Access and Uses and Other Features**

### **Access and Parking**

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The Isinglass River Conservation Reserve currently has no designated parking area. To access either property on foot, visitors park alongside Ricky Nelson Road or New Bow Lake Road or at the entrance to Pig Lane. Since these properties were used by previous owners as wood lots and not as homesteads (except historically on the Bedford Lot), there are no existing driveways, parking areas, or related structures. Likewise, there are not yet any recreational structures or accessories such as information kiosks, benches, gates, or trail markers.

### **Trails and Public Uses**

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The Hanson Lot has historically been popular with anglers and hunters; both properties remain open to these recreational activities. A traditional snowmobile route crosses through the Bedford Lot on an old woods road, and then follows Range Road onto Pig Lane. From there, snowmobilers continue on Pig Lane or travel on the gravel woods road through the Hanson Lot to the PSNH utility corridor (Map 2-4). Currently the snowmobile trail peters out here, but the local snowmobile club is interested in extending it out to New Bow Lake Road and into Barrington.

Many people travel Pig Lane on foot, snowshoes, cross-country skis, horses, snowmobiles, mountain bikes, and all-terrain vehicles. These users can also venture onto the Bedford and Hanson Lots on the woods roads described above. Routine use of the powerline corridor by all-terrain vehicle users has maintained a trail the length of the corridor, although these vehicles are not permitted on the IRCR.

As part of the 2008 Biothon on the Hanson Lot and for other educational visits, Strafford volunteers created a footpath that loops from Pig Lane onto the Hanson Lot, circling by the beaver pond, down to the Isinglass River and back along the shoreline to Pig Lane. A spur at the northeast end of the loop continues for another few hundred feet, providing a good view of the expansive marsh at the confluence of two threads of the Isinglass River (Maps 2-4).

The 1998 logging operation left a network of logging roads, skidder trails, and several log landings, which are regenerating into young forest. Gravel was likely excavated from the property to construct and maintain the gravel woods road that traverses the western section of the Hanson Lot.

### **Historic Features**

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The 1919 and 1957 aerial photos of the two properties show no evidence of logging roads and the powerline corridor is not visible. The utility line was built in the mid 1960s. Stonewalls are found in some interior sections of the now forested areas, indicating that pasture and other agricultural activities occurred here sometime in the past, likely more than 100 years before. A foundation pad made with cinder blocks is located south of the beaver pond on the Hanson Lot. This was presumed to be an attempt to build a house, possibly within the last 20 years. Nearby is a drilled well that is not capped, not being used, and not connected to anything. An old cellar hole is located in the northeast corner of the Bedford

property, thought to be the remnants of the Bunker homestead (Map 2). There are no other structures on the Isinglass River Conservation Reserve.

The historic Foss Mills is located along the Isinglass River near where it flows under the Pig Lane Bridge. The mill consisted of a series of dams and buildings that once serviced a grist mill and a shingle mill. The abutments of these dams and several fieldstone foundations remain. The 18-acre Foss Mill historic dam site is owned by the NH DES. Foss Mill was one of nine mills that once operated along the River and its tributaries. The Town of Strafford owns the 3.7-acre Walton's Lot (also known as Swains Mill), which abuts Foss Mill to the north. Both are accessible off Pig Lane, on the north side of the Isinglass River.

## Chapter 4 Stewardship Recommendations

As a community resource the Isinglass River Conservation Reserve offers many benefits and values including nature observation, wildlife habitat, scenic beauty, walking trails, fishing, hunting, clean air, places for quiet contemplation, and protection of the Isinglass River, among others. Stewardship of this special place is a long-term commitment by dedicated community members working together. The creation of this Stewardship Plan provides the foundation for moving forward on managing this great public space.

The Conservation Easement Deed for each property provides the overall framework for stewardship. We conducted site assessments in fall 2009, reviewed historic documents and natural resource studies and reports, and met with the Conservation Commission several times to develop these stewardship recommendations within the easement framework. The locations of specific stewardship recommendations are included on Map 6. Most of these stewardship recommendations can be accomplished through a combination of town volunteers and grant funds from various state programs.

We identified the following stewardship objectives for the Bedford and Hanson Lots based on the original intent to conserve the properties, the specific guidance contained in the Conservation Easement Deed, and on conversations with the town.

### Stewardship Objectives:

- ❖ To protect ground water and surface water, including the Isinglass River and other wetlands
- ❖ To protect, maintain, or enhance wildlife habitats, including the 8,980 feet of riparian habitat along the Isinglass River
- ❖ To protect native plants and animals, and unique or rare natural communities
- ❖ To restore and manage forests to reflect pre-settlement conditions (See page 20 and refer to Appendices B and D)
- ❖ To retain scenic qualities
- ❖ To preserve unique historic or cultural features
- ❖ To provide low-impact outdoor recreational opportunities\*

\*The Conservation Easement Deed does not call out recreation as a purpose for which the property was protected nor as a stewardship goal. However, keeping the properties open to public use for *traditional, daytime, non-motorized, noncommercial, non-intensive outdoor education and recreation* is clearly included elsewhere in the deed and reflects the town's desire for such uses. The Town can limit access to motorized vehicles; as noted elsewhere snowmobiles are permitted on the IRCR, while all other motorized vehicles are prohibited (unless for management purposes).

### Public Uses:

The Isinglass River Conservation Reserve is open to the following public uses:

- Hunting
- Fishing
- Pedestrian uses (e.g., walking, snowshoeing, cross-country skiing)
- Nature observation



The woods road/snowmobile trail, trail, and footpaths (described in more detail below) are open to the following uses, respectively. Each “trail” is listed in decreasing order of size and intensity of use.

*Woods road/snowmobile trail:* snowmobiles, mountain bikes, horseback-riders, pedestrians, management equipment

*Trail from the parking lot to the woods road:* mountain bikes, horseback-riders, pedestrians

*Footpaths:* pedestrian use only

The following uses are prohibited on the IRCR:

- All motorized vehicles, except snowmobiles, which are allowed on designated trails only
- Camping
- Fires, unless as part of an educational event that is consistent with the purposes of the IRCR

### **General Stewardship Guidelines**

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- Any management activities on the properties should follow:
  - *Best Management Practices for Erosion Control on Timber Harvesting Operations in New Hampshire* (J.B. Cullen, 1996)
  - *Good Forestry in the Granite State: Recommended Voluntary Forest Management Practices for New Hampshire* (New Hampshire Forest Sustainability and Standards Work Team, 1997) – a new version of this publication is to be available in 2010 – for more details see <http://goodforestry.pbworks.com/FrontPage>
  - *Appalachian Mountain Club’s Complete Guide to Trail Building and Maintenance*. Fourth Edition. (AMC 2008)
- Review and update the Stewardship Plan every ten years, or as necessary
- Repaint boundary blazes every 15 years, or as necessary
- Provide a complete copy of this Stewardship Plan to the easement holder, Bear-Paw Regional Greenways and notify Bear-Paw at least 30 days prior to starting any management activities, such as the parking lot, new trail clearing, and habitat management
- Join Bear-Paw in its annual monitoring of the property

## Parking and Trails

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### *Parking Lot*

- Delineate the boundaries of a new parking lot off New Bow Lake Road, such that it is less than 5,000 square feet and remains on the southerly side of the stone wall (see Map 6 and boundary survey, Appendix C)
- Notify Bear-Paw and NOAA prior to constructing the parking lot; written permission is required from both entities before initiating construction
- Obtain all necessary permits prior to construction
- Hire a contractor to create the parking lot using permeable materials and with minimal disturbance to surrounding area

### *Trails and Footpaths*

- Contact the Appalachian Mountain Club (Trails group – see Appendix I for contact information) to request a complimentary field visit. AMC will walk the trails and make verbal suggestions on trail layout, materials and wetland crossings. For a fee they will provide more detailed guidance in writing. Contact them before laying out any new trails or constructing bridges.
- Partner with the Strafford Swamp Stompers snowmobile club to enhance and maintain the existing woods road through the Bedford and Hanson Lots as a snowmobile corridor. This includes:
  - Design and build a bridge across the stream drainage on the Bedford property (Map 6)
    - Apply for a grant from the NH Recreational Trails Program. Include costs for the bridge and two iron gates-see below (see Appendix I for grant sources)
    - Apply for any necessary wetlands permits
  - Assess the need for trail enhancements to avoid wetlands impacts on the snowmobile trail at the south end of the powerline corridor; this may be as simple as using this section of the trail only during frozen conditions (Map 6)
  - Install locked iron gates at the woods road entrance off Pig Lane and where the snowmobile trail exits the south end of the Hanson Lot on the powerline corridor (Map 6). These gates should be installed to allow pedestrians to walk around the gates, but prevent all-terrain vehicles to enter. The gates would be left open during winter for snowmobiles.
  - Install trail signs or arrows to inform snowmobilers of the trail locations
  - *The woods road/snowmobile trail is open to snowmobiles, pedestrians, horseback riders, and mountain bikers, and as access for land management activities*
- Create a new trail that leads from the new parking lot down to the woods road on the Hanson Lot. *The purpose of this trail is to provide access for pedestrians, mountain bikers, and horseback riders, but not motorized vehicles.*

- This requires moving some stone to create an opening in the stonewall
  - Lay out the route of the trail to minimize impact to the *red maple – black ash swamp* at the bottom of the slope (see Map 6)
  - Parts of this trail route may require some new materials (such as sand and gravel, or sections of boardwalk or bog bridges) to accommodate the uses for this trail, prevent soil erosion, or compaction, and avoid excessive trampling of wetland vegetation. Any bridge or other wetland crossing needs to be sufficient to accommodate horses and bikes, as neither should be allowed to ride through the wetland.
  - Clear the trail when the invasive plant species in this area can be removed and properly disposed of without causing the spread of seeds or vegetative material (see section below on invasive plant control)
- Create new footpaths on the Bedford and Hanson Lots, as shown on Map 6. *The purpose of these footpaths is for low-impact pedestrian use only; no motorized vehicles, mountain bikes, or horses.* Given these uses, the trail width should be less than four feet. The proposed east-west trail that leads from the north end of the Bedford Lot east to Pig Lane crosses land that is currently privately-owned; an agreement with this private landowner is needed before laying out this length of footpath. This stretch should skirt the wetland edge to avoid any erosion or water quality impacts
  - Install structures across stream drainages and wetlands on the existing and new footpaths as needed. This may include bridges, bog bridges, stepping stones, or related structures
    - Approximate locations are shown on Map 6
    - Obtain wetlands permits as necessary
  - Install a bench or benches at key points along the footpaths to provide rest spots and wildlife observation opportunities. Potential locations are shown on Map 6.
  - Annually monitor the condition of the woods road, trail, and footpaths for signs of erosion or impacts to water quality.

## Habitat Management

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## Invasive Species Management

Control and removal of invasive plant species is one of the most difficult management challenges. Fortunately the IRCR is relatively free of invasive plant species. However, the existing pockets of invasive plants will continue to spread if not controlled and removed. Invasive plants are particularly suited to disturbed or open conditions, such as road edges, disturbed upland or wetland soils, powerline right of ways, harvested areas, and agricultural or early successional habitat. The fact that there are relatively few and small patches of invasive plants, presents an opportunity to eliminate them, or limit their spread before the situation becomes intractable.

Mechanical, chemical, and biological techniques are effective depending on the specific invasive plant. The use of chemicals to control invasive plants requires careful consideration, especially in wetlands, and should be applied by a licensed pesticide applicator. Physical removal of roots or stems can be effective, but usually requires repeated cutting or pulling over several years. Volunteers are often eager to help with the latter.

Eleven state and federal agencies and nonprofit organizations formed an alliance called the Coastal Watershed Invasive Plant Partnership to work collaboratively on invasive species control. The mission is *to protect the ecological integrity of natural habitats and economic vitality of managed lands in New Hampshire's coastal watershed through activities that reduce the threat of invasive plants*. For more information see <http://des.nh.gov/organization/divisions/water/wmb/coastal/cwipp/index.htm>. For more information on identifying invasive plant species in New Hampshire see the following publications and resources at <http://extension.unh.edu/forestry/Docs/invasive.pdf>; <http://www.nashuarpc.org/envplanning/documents/SoRLAC/invasiveplants.pdf>, and <http://nbii-nin.ciesin.columbia.edu/ipane/index.htm>

- Engage volunteers in assisting with physical removal of invasive plant species. See Map 6 for the approximate location of invasive plant populations. Given the propensity of these species to spread, proper removal and disposal is essential. Plants should be bagged and disposed of in landfills or burned and should not be cut or moved while they are fruiting. All vegetative parts, including the roots, should be removed. Repeated cutting is often required. Chemical applications may be needed, but should be used according to proper guidelines and by a certified pesticide applicator.
- Avoid introducing any non-native species onto the IRCR. Several local or regional sources of native plants are available if plantings are needed for any future restoration. Consult the New Hampshire State Forest Nursery (<http://www.dred.state.nh.us/nhnursery/>), New England Wildflower Society (<http://www.newfs.org/>), New England Wetland Plants Inc (<http://www.newp.com/>), or other sources of native plants.
- Annually monitor the known locations of invasive plants and check potential sites for new infestations. Potential sites include along the woods road, trail, and footpaths, under the powerline, and in wetlands. Remove new invasive plants as soon as possible.
- Periodically review the strategy, approach, and success of invasive plant control efforts (perhaps every 5 years). If efforts are ineffective in eliminating or controlling invasives, consider additional prioritization of targeted control areas (for example, by focusing control efforts on maintaining habitats or communities that are most vulnerable to or threatened by invasive plants, focusing on areas where success is possible, and relinquishing efforts in the most intractable areas, such as the powerline right-of-way).

### **Early Successional Habitat**

Approximately 5 to 10 percent of the uplands (336 acres) on the IRCR are in early successional habitat. Most of that is maintained as a 23-acre shrub community by PSNH. The remaining 4-5 acres were created when the woods road and log landings were constructed about 10 years ago. These areas now support a sapling stand of birch, aspen, other hardwoods, and hemlock. Based on historic conditions, the stewardship objective of restoring a more mature forest, and maintaining some early successional habitat for declining wildlife species, we believe that maintaining this proportion of early successional habitat (about 10% or less) is an appropriate management goal for the IRCR. Early successional habitat conditions also occur naturally around most of the wetland edges and natural disturbances will create patches of young forest over time.

- Contact the Transmission Group at PSNH to let them know the importance of the powerline corridor as early successional shrub habitat on the IRCR. Inform them of efforts to remove invasive species in the corridor and encourage them retain all native shrubs during future vegetation treatments under the powerline, and to consider implementing strategies to limit the spread of invasive plants on machinery used for powerline maintenance (i.e. power washing wheels and track when machinery is moved from site to site). See Appendix I for contact information
- Maintain the existing, or slightly expanded, area of early successional young forest habitat on the Hanson Lot through active management (Map 6)
  - Cut 5-10 acres along the woods road and at three locations along the woods road (old log landings) every 15-20 years. This requires contracting the services of a brontosaurus for treating the saplings; removal of some larger pines will require a chain saw or other mechanized equipment
  - Apply for a grant to cover the costs of this habitat management (e.g., NHFG small grants program or USFWS Partners for Wildlife, or other available program)

### **Upland Forest**

One of the stewardship goals for the IRCR is to restore the forest to a pre-settlement condition (see page 20 for more information). The following guidelines will help the forest recover from past human disturbances, especially the 1998 liquidation harvest, and steer it toward the structural features noted in pre-settlement forests.

- Allow the forest on the Bedford and Hanson Lots to continue to mature through natural succession and allow natural forest dynamics and ecosystem processes to prevail. The Bedford property will start to develop late successional characteristics (e.g., bigger trees, and multi-aged and sized forest stands, more coarse woody material such as snags and downed logs), while the Hanson Lot will develop mid-successional characteristics, and eventually late-successional conditions. Natural disturbances, such as single tree falls or large-scale wind storms, will periodically reset succession and introduce more structural complexity to the forest.
- Allow trees to age, die, and fall, creating a greater abundance of snags and coarse woody material that is important for wildlife habitat structure, contributes to the health of the forest in terms of diversity of organisms and ecological processes. For example, retention of older trees and development of coarse woody material creates habitat for numerous vertebrate species as well as invertebrates, fungi, bryophytes, and soil organisms. It also returns organic matter to the soil increases carbon sequestration of the sit, and enhances long-term nutrient retention and integrity of nutrient cycling processes.
- Remove dead and fallen trees from the forest only if they cause a safety hazard along the trails or fall on the trails, or if necessary for control of non-native forest pests.
- Native pathogens are a natural part of the forest; however, non-native forest pests are a concern across the state. Periodically monitor for the presence of hemlock woolly-adelgid, Asian long-horned beetle and other pests. See NH Division of Forests and Lands for more information: <http://www.nhdf.org/forest-health/wanted-list.aspx>. Cutting to control non-native species may be warranted and feasible in some circumstances. However, since the property deeds indicate that cutting

should not be done for economic motives; silvicultural prescriptions to remove diseased trees to improve economic return of the forest may not be appropriate or necessary.

- Review forest conditions every ten years in concert with the review and update of the Stewardship Plan. Non-native forest pests, invasive species, and climate change are some of the issues that may affect the management direction on the IRCR.

## **Education and Environmental Stewardship**

---

The IRCR offers a great opportunity to engage volunteers in land and water stewardship and to help people learn more about the ecology and history of the upper Isinglass River watershed. A few specific ideas are presented below, although other opportunities will likely emerge over time.

- Erect an information kiosk at the new parking lot. Include a property map with trail locations and allowed uses; prohibited uses, funding acknowledgments, and other educational materials. Apply for a moose plate grant to cover costs of the kiosk and other educational materials
- Consider erecting another kiosk at or near the bridge over the Isinglass River or near entrance to the Hanson Lot from Pig Lane. This could be in partnership with NH DES, which owns the historic Foss Mill parcel
- Add this Stewardship Plan to the town website to provide more opportunities for people to learn about the IRCR. Post volunteer opportunities there as needed, such as for invasive species removal, trail clearing, annual monitoring of erosion
- Engage volunteers, students, teachers, knowledgeable citizens, or other interested groups in helping to monitor habitats and gather information on wildlife use of these habitats. This could range from simple surveys to a more rigorous monitoring protocol. These surveys could include plots or transects in each of the major habitat types: upland forest, dry Appalachian oak forest, early successional forest, shrubland, vernal pools, black gum swamps and other wetlands
- Support the Isinglass River Local Advisory Committee in their water quality monitoring (VRAP) and biological monitoring (VBAP). These efforts will help alert the Conservation Commission to potential management issues such as runoff, erosion, or other related issues

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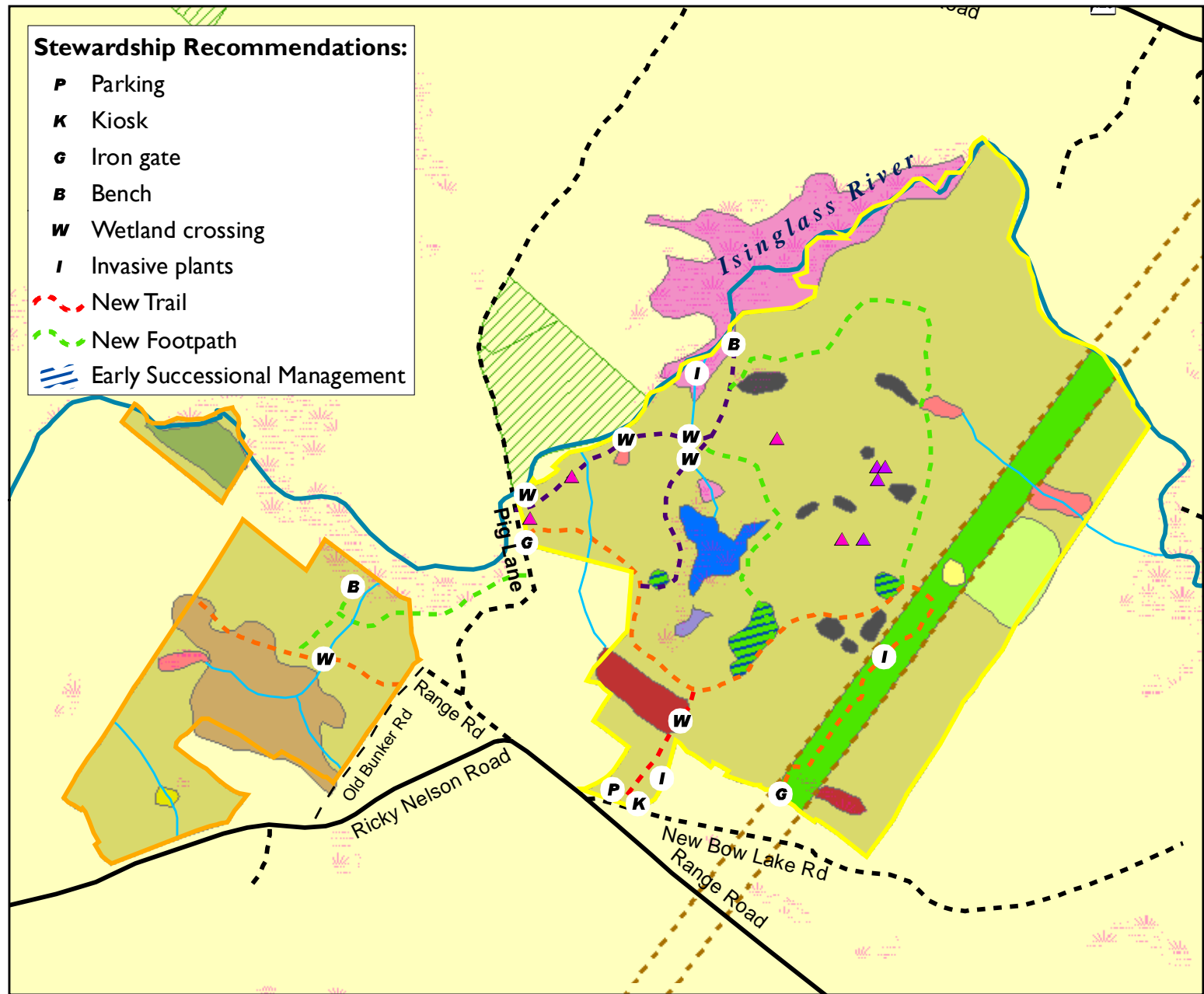


# MAP 6 - Stewardship Recommendations

Isinglass River Conservation Reserve: Hanson and Bedford Lots  
Strafford, NH

- Hanson Lot
- Bedford Lot
- Other Cons. Lands
- Isinglass River
- Streams
- Wetlands
- Roads
- Class VI Roads
- Woods Road / Snowmobile Trail
- Footpath
- Powerline right-of-way

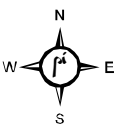
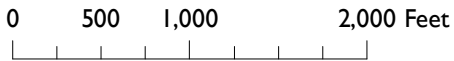
- Stewardship Recommendations:**
- P** Parking
  - K** Kiosk
  - G** Iron gate
  - B** Bench
  - W** Wetland crossing
  - I** Invasive plants
  - New Trail
  - New Footpath
  - Early Successional Management



Data Sources: Data provided by NH GRANIT except: target property boundaries (provided by the Town of Strafford) and natural communities (provided by Sperduto Ecological Services LLC).

Boundary and feature locations are approximate.

Map produced by Ibis Wildlife Consulting.  
Cartography by Pete Ingraham.



- |  |                                      |                                    |
|--|--------------------------------------|------------------------------------|
| hemlock - beech - oak - pine forest      | red maple - black ash swamp          | pond/aq. bed/short sedge moss lawn |
| heml.-beech-oak-pine (compact till var.) | red maple - sensitive fern swamp     | sedge meadow marsh > cattail marsh |
| hemlock - cinnamon fern forest           | black gum and red maple basin swamps | marsh system                       |
| dry Appalachian oak forest               | cattail marsh>meadow marsh>sedge fen | vernal pool                        |
| early successional                       | cattail marsh/vernal pool            | vernal pool with black gum         |

# MAP 5 - Soils

Isinglass River Conservation Reserve: Hanson and Bedford Lots  
Strafford, NH


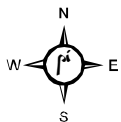
-  Hanson Lot
-  Bedford Lot
-  Other Cons. Lands
-  Isinglass River
-  Streams
-  Wetlands
-  Woods Road / Snowmobile Trail
-  Footpath
-  Roads
-  Class VI Roads


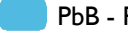





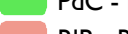

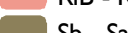

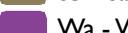




Data Sources: Data provided by NH GRANIT except: target property boundaries (provided by the Town of Strafford).

Boundary and feature locations are approximate.

Map produced by Ibis Wildlife Consulting.  
Cartography by Pete Ingraham.

0 500 1,000 2,000 Feet

- |   |  |
|---|--|
|  CvD - Charlton extremely stony fine sandy loam, 8 to 25% slopes     |  PbB - Paxton fine sandy loam, 0 to 8% slopes               |
|  GsC - Gloucester very stony fine sandy loam, 8 to 15% slopes        |  PbC - Paxton fine sandy loam, 8 to 15% slopes              |
|  GsE - Gloucester very stony fine sandy loam, 25 to 60% slopes       |  PdB - Paxton very stony fine sandy loam, 3 to 8% slopes    |
|  GtD - Gloucester extremely stony fine sandy loam, 8 to 25% slopes   |  PdC - Paxton very stony fine sandy loam, 8 to 15% slopes   |
|  HaB - Hinckley loamy sand, 3 to 8% slopes                           |  RIB - Ridgebury very stony fine sandy loam, 3 to 8% slopes |
|  LeB - Leicester very stony fine sandy loam, 3 to 8% slopes          |  Sb - Saugatuck loamy sand                                  |
|  LrB - Leicester-Ridgebury v. stony fine sandy loams, 3 to 8% slopes |  Wa - Whitman very stony fine sandy loam                    |
|  Mp - Muck and peat  |  WsC - Woodbridge v. stony fine sandy loam, 8 to 15% slopes |

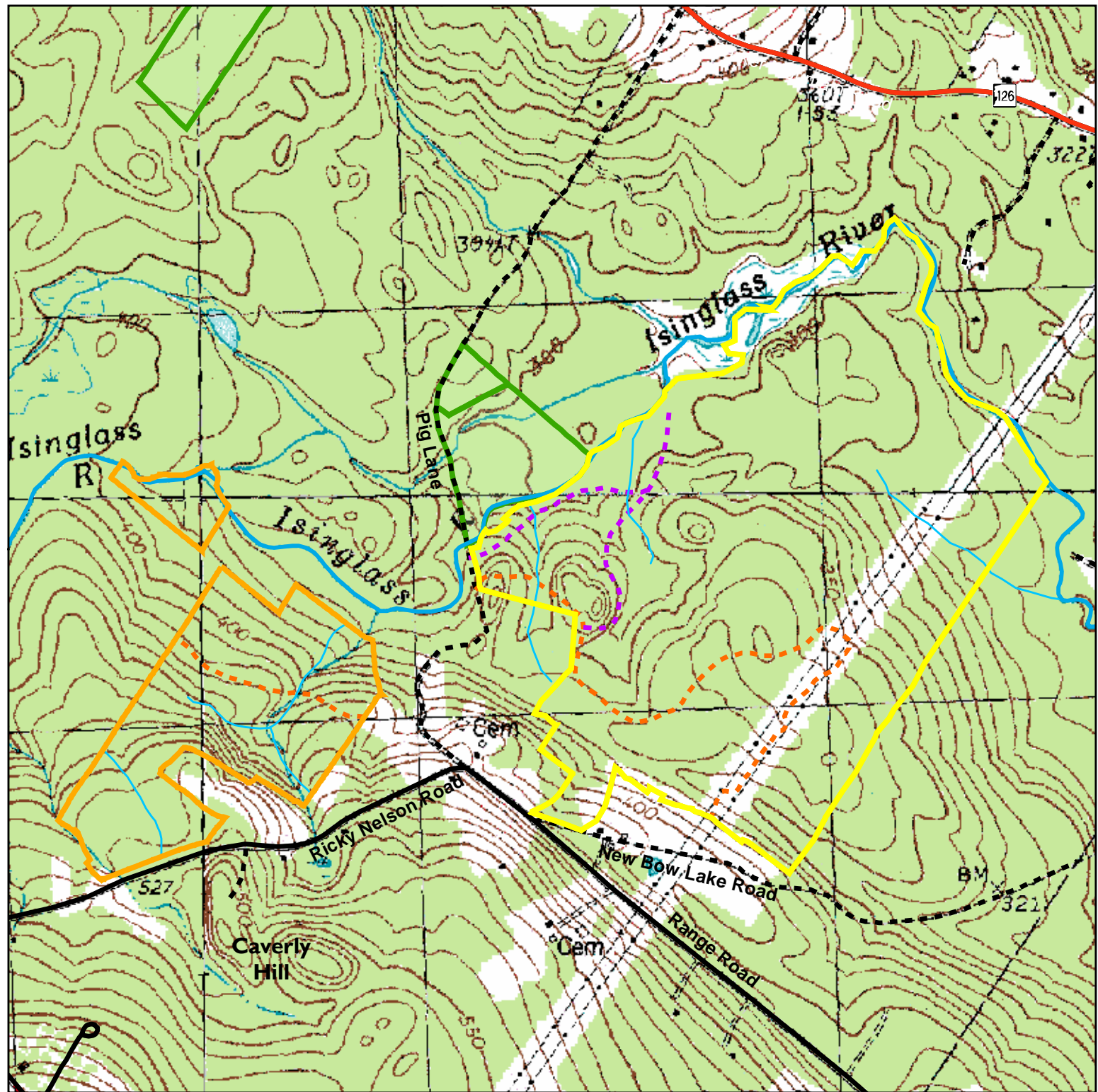
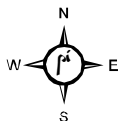
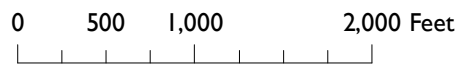
**MAP 4 - Topography**  
*Isinglass River Conservation Reserve: Hanson and Bedford Lots*  
 Strafford, NH

-  Hanson Lot
-  Bedford Lot
-  Other Cons. Lands
-  Isinglass River
-  Streams
-  Woods Road /  
Snowmobile Trail
-  Footpath
-  Highways
-  Roads
-  Class VI Roads

*Data Sources:* Data provided by NH GRANIT except: target property boundaries (provided by the Town of Strafford).

*Boundary and feature locations are approximate.*

Map produced by Ibis Wildlife Consulting.  
 Cartography by Pete Ingraham.



# MAP 3 - Natural Communities, Habitats and Other Features

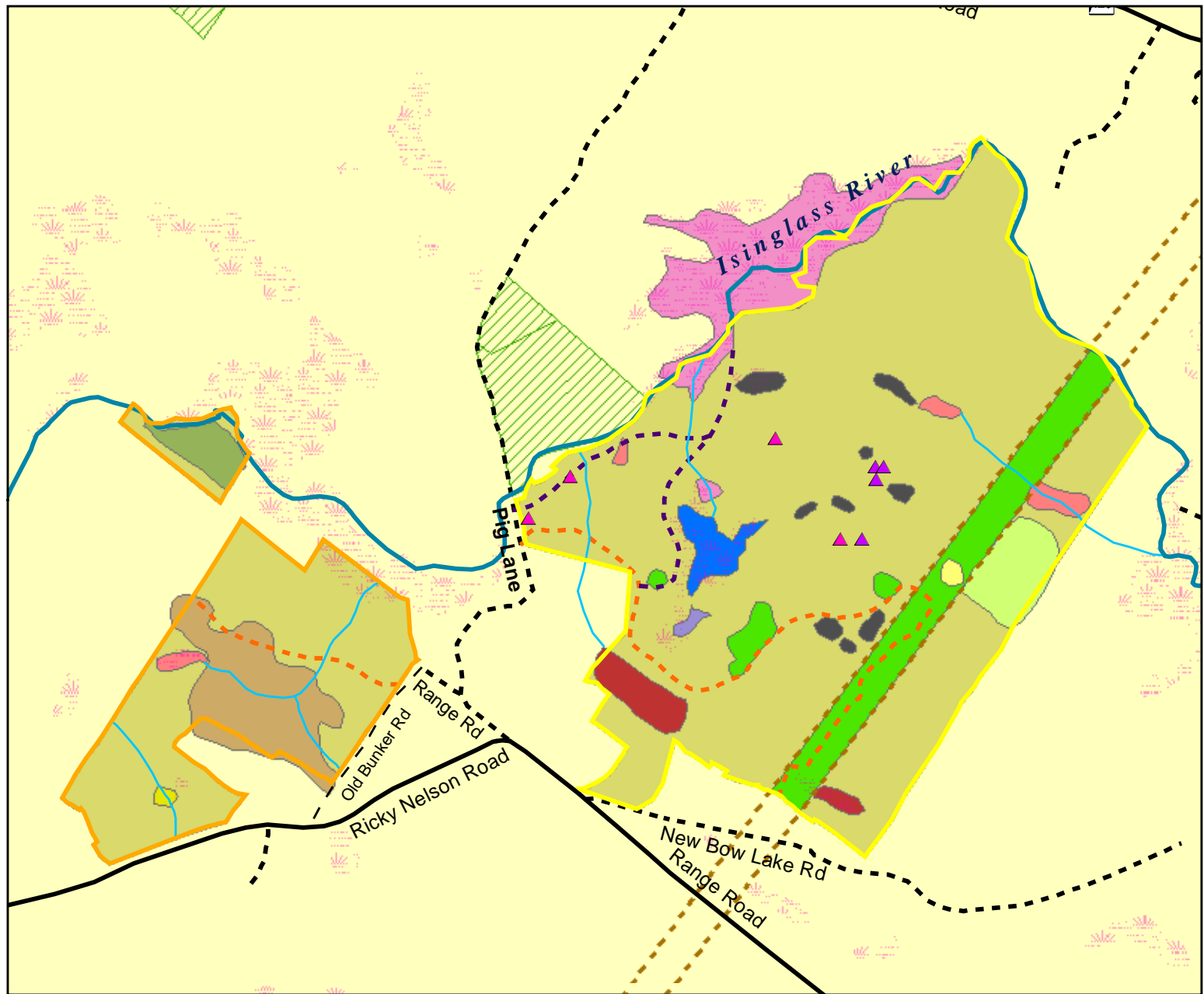
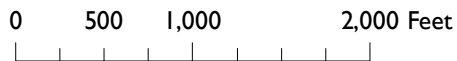
Isinglass River Conservation Reserve: Hanson and Bedford Lots  
Strafford, NH
















-  Hanson Lot
-  Bedford Lot
-  Other Cons. Lands
-  Isinglass River
-  Streams
-  Wetlands
-  Roads
-  Class VI Roads
-  Woods Road / Snowmobile Trail
-  Footpath
-  Powerline right-of-way

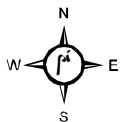
Data Sources: Data provided by NH GRANIT except: target property boundaries (provided by the Town of Strafford) and natural communities (provided by Sperduto Ecological Services LLC).

Boundary and feature locations are approximate.

Map produced by Ibis Wildlife Consulting.  
Cartography by Pete Ingraham.



- |  |  |  |
|--|--|--|
|  hemlock - beech - oak - pine forest      |  red maple - black ash swamp          |  pond/aq. bed/short sedge moss lawn |
|  heml.-beech-oak-pine (compact till var.) |  red maple - sensitive fern swamp     |  sedge meadow marsh > cattail marsh |
|  hemlock - cinnamon fern forest           |  black gum and red maple basin swamps |  marsh system                       |
|  dry Appalachian oak forest               |  cattail marsh>meadow marsh>sedge fen |  vernal pool                        |
|  early successional                       |  cattail marsh/vernal pool            |  vernal pool with black gum         |



## MAP 2 - Base Map

Isinglass River Conservation Reserve: Hanson and Bedford Lots  
Strafford, NH

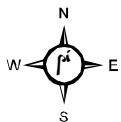
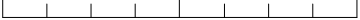
-  Hanson Lot
-  Bedford Lot
-  Other Cons. Lands
-  Isinglass River
-  Streams
-  Woods Road /  
Snowmobile Trail
-  Footpath
-  Highways
-  Roads
-  Class VI Roads
-  Discontinued Roads
-  Bridge
-  Foundation
-  Monitoring Well

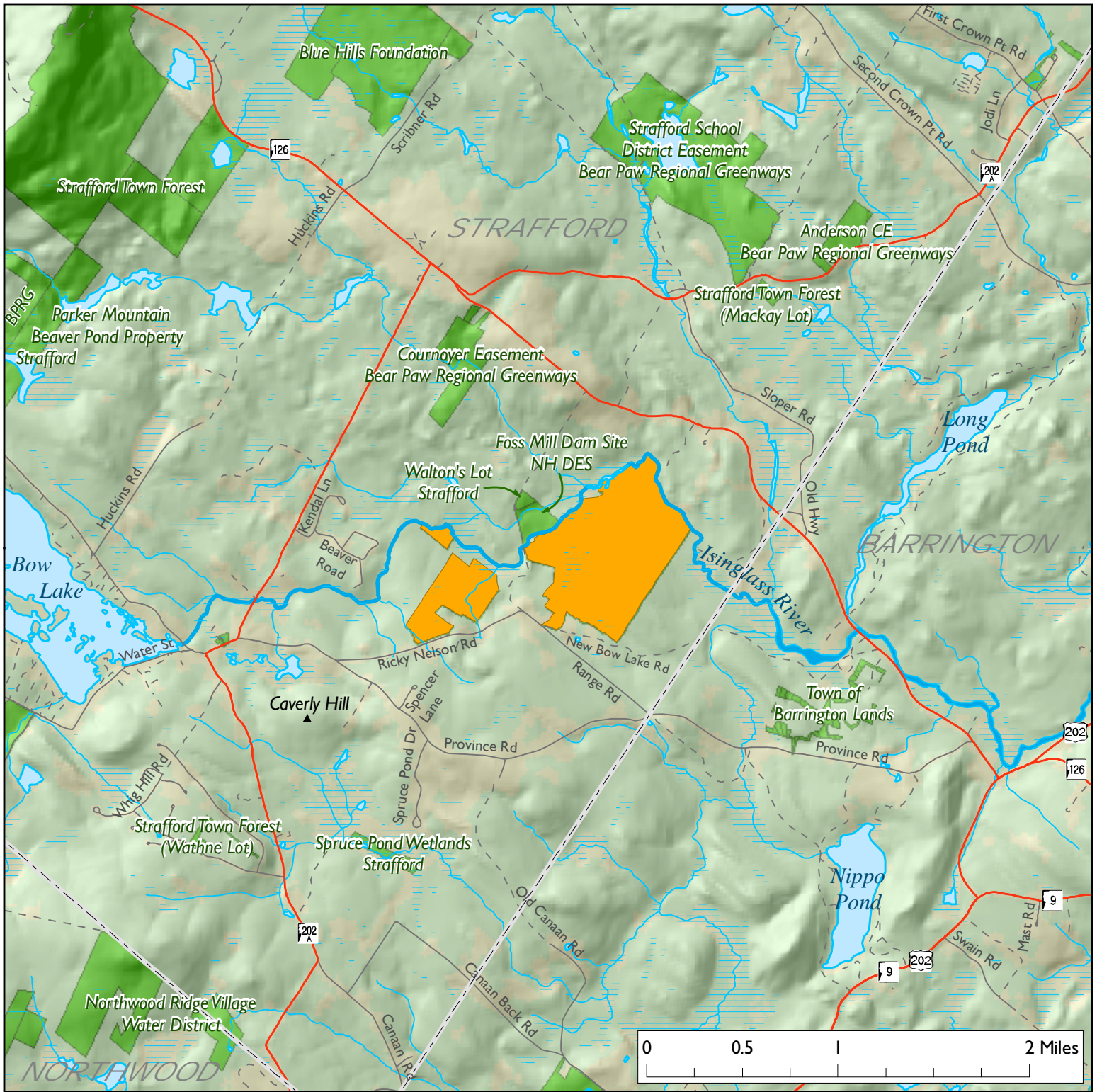
Data Sources: Data provided by NH GRANIT except: target property boundaries (provided by the Town of Strafford).

Boundary and feature locations are approximate.

Map produced by Ibis Wildlife Consulting.  
Cartography by Pete Ingraham.

0 500 1,000 2,000 Feet

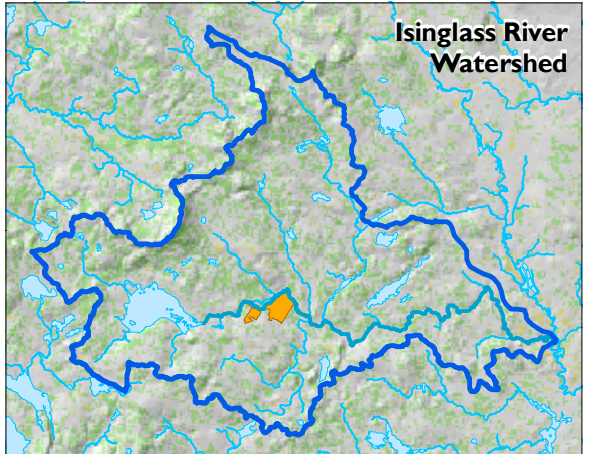
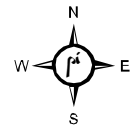




### MAP 1 - Locus Map

Isinglass River Conservation Reserve: Hanson and Bedford Lots  
Strafford, NH

- Target Properties
- Other Cons. Lands
- Town Boundaries
- Highways
- Roads
- Class VI Rds
- Wetlands
- Isinglass River
- Streams
- Water

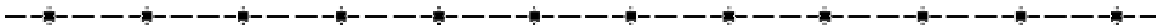


Data Sources: Data provided by NH GRANIT except: target property boundaries (provided by the Town of Strafford), hillshade (provided by USGS).  
Boundary and feature locations are approximate.  
Map produced by Ibis Wildlife Consulting. Cartography by Pete Ingraham.

**NEW HAMPSHIRE PROHIBITED PLANT SPECIES:**

(\* indicates that the species is currently regulated by the Department of Environmental Services [DES])

<i>Ailanthus altissima</i>	Tree of Heaven
<i>Alliaria petiolata</i>	Garlic Mustard
<i>Berberis vulgaris</i>	European Barberry
<i>Butomous umbellate*</i>	Flowering Rush
<i>Cabomba caroliniana*</i>	Fanwort
<i>Celastrus orbiculatus</i>	Oriental Bittersweet
<i>Cynanchum nigrum</i>	Black Swallow-wort
<i>Cynanchum rossicum</i>	Pale Swallow-wort
<i>Egeria densa*</i>	Brazilian elodea
<i>Elaeagnus umbellata</i>	Autumn Olive
<i>Heracleum mantegazzianum</i>	Giant Hogweed
<i>Hydrilla verticillata*</i>	Hydrilla
<i>Hydrocharis morsus-ranae*</i>	European Frogbit
<i>Iris pseudacorus</i>	Water-flag
<i>Ligustrum obtusifolium</i>	Blunt-leaved Privet
<i>Lonicera x bella</i>	Showy Bush Honeysuckle
<i>Lonicera japonica</i>	Japanese Honeysuckle
<i>Lonicera morrowii</i>	Morrow's Honeysuckle
<i>Lonicera tatarica</i>	Tartarian Honeysuckle
<i>Lythrum salicaria*</i>	Purple loosestrife
<i>Myriophyllum aquaticum*</i>	Parrot Feather
<i>Myriophyllum heterophyllum*</i>	Variable Milfoil
<i>Myriophyllum spicatum*</i>	European Water-Milfoil
<i>Najas minor*</i>	European Naiad
<i>Nymphoides peltata*</i>	Yellow Floating Heart
<i>Phragmites australis*</i>	Common Reed
<i>Polygonum cuspidatum</i>	Japanese Knotweed
<i>Potamogeton crispus*</i>	Curly-leaf Pondweed
<i>Rhamnus cathartica</i>	Common Buckthorn
<i>Rhamnus frangula</i>	Glossy Buckthorn
<i>Rosa multiflora</i>	Multiflora Rose
<i>Trapa nutans*</i>	Water Chestnut



**JANUARY 1, 2007**

**THE FOLLOWING NEW HAMPSHIRE PROHIBITED PLANT SPECIES  
WILL BE BANNED:**

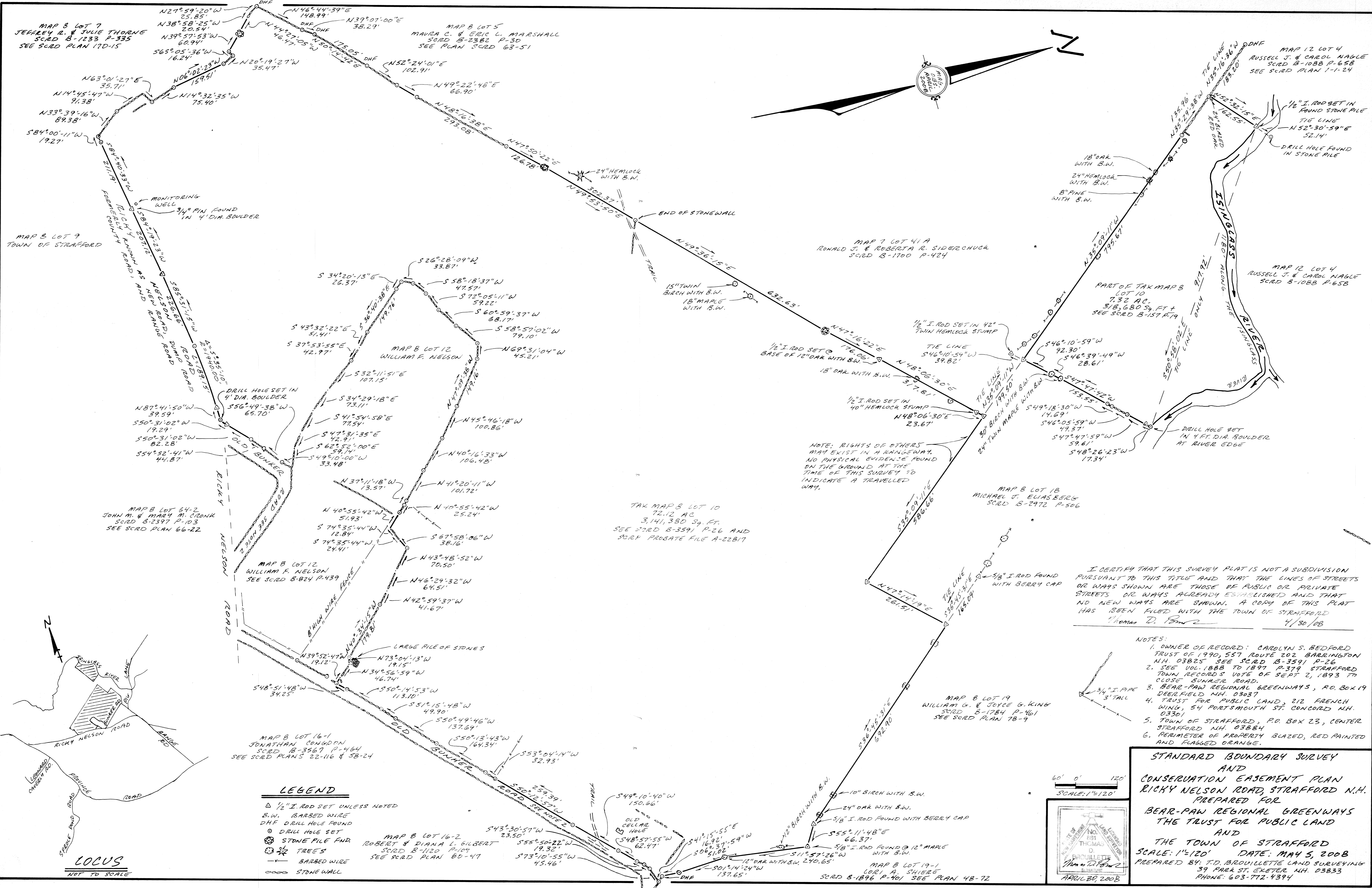
<i>Euonymus alatus</i>	Burning Bush
<i>Acer platanoides</i>	Norway Maple
<i>Berberis thunbergii</i>	Japanese Barberry



**PROPOSED**  
**NEW HAMPSHIRE PROHIBITED INSECT SPECIES:**

<i>Acarapis woodi</i>	Honeybee Tracheal Mite
<i>Adelges tsugae</i>	Hemlock Woolly Adelgid
<i>Aeolesthes sarta</i>	City Longhorned Beetle
<i>Anoplophora glabripennis</i>	Asian Longhorned Beetle
<i>Callidellum rufipenne</i>	Cedar Longhorned Beetle
<i>Dendrolimus sibiricus</i>	Siberian Silk Moth
<i>Fiorinia externa</i>	Elongated Hemlock Scale
<i>Hylurgus lingniperda</i>	Redhaired Bark Beetle
<i>Ips typographus</i>	European Spruce Bark Beetle
<i>Lymantria dispar</i>	Asian Gypsy Moth
<i>Popillia japonica</i>	Japanese Beetle
<i>Pyrrhalta viburni</i>	Viburnum Leaf Beetle
<i>Rhizotrogus majalis</i>	European Chafer
<i>Symantria monacha</i>	Nun Moth
<i>Tetropium fuscum</i>	Brown Spruce Longhorn Beetle
<i>Varroa destructor</i>	Varroa Mite





MAP 8 LOT 7  
JEFFREY L. & JULIE THORNE  
SCRD B-1233 P-335  
SEE SCRD PLAN 170-15

MAP 8 LOT 5  
MAURA C. & ERIC L. MARSHALL  
SCRD B-2382 P-30  
SEE PLAN SCRD 63-51

MAP 12 LOT 4  
RUSSELL J. & CAROL NAGLE  
SCRD B-1088 P-658  
SEE SCRD PLAN 1-1-24

MAP 8 LOT 9  
TOWN OF STRAFFORD

MAP 7 LOT 41 A  
RONALD J. & ROBERTA R. SIDERCHUCK  
SCRD B-1100 P-424

MAP 12 LOT 4  
RUSSELL J. & CAROL NAGLE  
SCRD B-1088 P-658

MAP 8 LOT 64.2  
JOHN M. & MARY M. O'DONK  
SCRD B-2397 P-103  
SEE SCRD PLAN 66-22

TAX MAP 8 LOT 10  
72.12 AC.  
3,141,380 SQ. FT.  
SEE SCRD B-3591 P-26 AND  
SCRD PROBATE FILE A-22817

MAP 8 LOT 18  
MICHAEL J. ELIASBERG  
SCRD B-2472 P-506

MAP 8 LOT 19  
WILLIAM G. & JOYCE G. KING  
SCRD B-1784 P-461  
SEE SCRD PLAN 78-9

MAP 8 LOT 16-1  
JONATHAN CONGDON  
SCRD B-3567 P-464  
SEE SCRD PLAN S-22-116 & 58-24

**LEGEND**

- ⊠ 1/2" I. ROD SET UNLESS NOTED
- B.W. BARBED WIRE
- DHF DRILL HOLE FOUND
- ⊙ DRILL HOLE SET
- ⊗ STONE PILE FND
- ⊛ TREES
- BARBED WIRE
- ⊞⊞⊞⊞ STONE WALL

MAP 8 LOT 16-2  
ROBERT & DIANA L. GILBERT  
SCRD B-1120 P-109  
SEE SCRD PLAN 60-47

MAP 8 LOT 19-1  
LOEL A. SHIERE  
SCRD B-1896 P-461 SEE PLAN 48-72

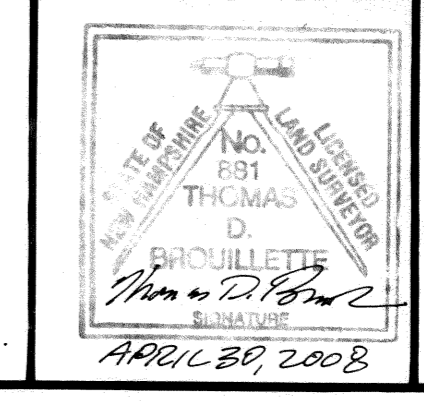
NOTE: RIGHTS OF OTHERS  
MAY EXIST IN A HANGARWAY.  
NO PHYSICAL EVIDENCE FOUND  
ON THE GROUND AT THE  
TIME OF THIS SURVEY TO  
INDICATE A TRAVELLED  
WAY.

I CERTIFY THAT THIS SURVEY PLAT IS NOT A SUBDIVISION  
PURSUANT TO THIS TITLE AND THAT THE LINES OF STREETS  
OR WAYS SHOWN ARE THOSE OF PUBLIC OR PRIVATE  
STREETS OR WAYS ALREADY ESTABLISHED AND THAT  
NO NEW WAYS ARE SHOWN. A COPY OF THIS PLAT  
HAS BEEN FILED WITH THE TOWN OF STRAFFORD  
Thomas D. Brouillette  
4/30/08

- NOTES:
1. OWNER OF RECORD: CAROLYN S. BEDFORD TRUST OF 1990, 557 ROUTE 202 BARRINGTON N.H. 03825 SEE SCRD B-3591 P-26
  2. SEE VOL. 188B TO 1897 P.379 STRAFFORD TOWN RECORDS VOTE OF SEPT 2, 1893 TO CLOSE BUNKER ROAD.
  3. BEAR-PAW REGIONAL GREENWAYS, R.O. BOX 19 DEERFIELD N.H. 03037
  4. TRUST FOR PUBLIC LAND, 212 FRENCH WING, 54 PORTSMOUTH ST. CONCORD N.H. 03301
  5. TOWN OF STRAFFORD, P.O. BOX 23, CENTER STRAFFORD N.H. 03884
  6. PERIMETER OF PROPERTY BLAZED, RED PAINTED AND FLAGGED ORANGE.

**STANDARD BOUNDARY SURVEY  
AND  
CONSERVATION EASEMENT PLAN  
RICKY NELSON ROAD, STRAFFORD N.H.  
PREPARED FOR  
BEAR-PAW REGIONAL GREENWAYS  
THE TRUST FOR PUBLIC LAND  
AND  
THE TOWN OF STRAFFORD  
SCALE: 1"=120' DATE: MAY 5, 2008  
PREPARED BY: T.D. BROUILLETTE LAND SURVEYING  
39 PARK ST. EXETER N.H. 03833  
PHONE: 603-772-4394**

SCALE: 1"=120'



LOCUS  
NOT TO SCALE

THIS IS A NON-CONTRACTUAL  
CONVEYANCE PURSUANT TO NEW  
HAMPSHIRE RSA 78-B:2 AND IS  
EXEMPT FROM THE NEW HAMPSHIRE  
REAL ESTATE TRANSFER TAX.

Doc # 0036512 Aug 1, 2008 11:36 AM  
Book 3667 Page 0411 Page 1 of 19  
Register of Deeds, Strafford County

### CONSERVATION EASEMENT DEED

**TOWN OF STRAFFORD**, a municipal corporation situated in the County of Strafford, State of New Hampshire, acting through its Conservation Commission pursuant to New Hampshire RSA 36-A:4, with a mailing address of Post Office Box 23, Strafford, New Hampshire 03815 (hereinafter referred to as the "Town" or the "Grantor", which word where the context requires includes the plural and shall, unless the context clearly indicates otherwise, include the Grantor's executors, administrators, legal representatives, devisees, heirs, successors and assigns),

for consideration paid, with WARRANTY covenants, grants in perpetuity to

**BEAR-PAW REGIONAL GREENWAYS**, a New Hampshire not-for-profit corporation, situated in the County of Rockingham, State of New Hampshire, with a mailing address of Post Office Box 19, Deerfield, New Hampshire 03037 (together with its employees, agents, contractors, successors, and assigns hereinafter collectively referred to as "Bear-Paw" or as the "Grantee", which shall, unless the context clearly indicates otherwise, include the Grantee's successors and assigns),

the **CONSERVATION EASEMENT** (herein referred to as the "Easement") hereinafter described with respect to that certain parcel of land (herein referred to as the "Property") being unimproved land consisting of approximately 79.44 acres situated on the northerly side of Ricky Nelson Road in the Town of Strafford, County of Strafford, State of New Hampshire, as shown on a plan entitled "Standard Boundary Survey and Conservation Easement Plan, Ricky Nelson Road", prepared by T.D. Brouillette Land Surveying, dated May 5, 2008, to be recorded herewith (the "Plan"), and more particularly bounded and described in Appendix "A" attached hereto and made a part hereof.

The value of the underlying fee interest in this property was used as match for a federal financial

assistance award granted to the Town of Strafford through the National Oceanic and Atmospheric Administration's (NOAA) Coastal and Estuarine Land Conservation Program (CELCP) (award #NA08NOS4190438). This easement provides additional protection to the property, and further ensures that it shall be managed for the conservation purposes and uses under which it was entered into the Coastal and Estuarine Land Conservation Program. Bear-Paw Regional Greenways is responsible for monitoring and enforcing the provisions of this Easement.

1. PURPOSES

The Easement hereby granted is pursuant to NH RSA 477:45-47, exclusively for the following conservation purposes (herein referred to as the "Purposes") for the public benefit:

A. The perpetual protection of the quality of groundwater and surface water resources under and on the Property in order to safeguard the environmental values of the Property which are dependent on water quality and quantity. Protection of the Property will also help maintain the quality of water in the Isinglass River, an important watershed of coastal New Hampshire;

B. The conservation and protection of open spaces, particularly the conservation of wildlife habitat, forestland, and wetlands. The property includes approximately 1,180 feet of undeveloped frontage along the Isinglass River. Portions of the Property were identified as a conservation priority in the Conservation Plan for New Hampshire's Coastal Watershed and it provides habitat for a wide variety of native wildlife including moose, deer, turkey, beaver, coyote, and migratory song birds;

C. The enhancement and enlargement of 360 acres of protected land that is near by the Property, said other land including the Town of Strafford's Isinglass River property (286 acres), the Cournoyer easement (55 acres), and the Foss Mill Dam Site (19 acres);

D. The protection of land within a large 1,800-acre block of unfragmented lands, providing for species that require large contiguous forest ecosystems and forest interior habitat to survive; and

E. The protection of the Property's 874 feet of undeveloped road frontage and the general public's scenic enjoyment from Ricky Nelson Road.

The above Purposes are consistent with the clearly delineated open space conservation goals and/or objectives as stated in the 2002 Master Plan of the Town of Strafford, which includes among its goals the following:

- To protect the community's significant undeveloped land areas...utilizing tools for land protection...; and
- To protect the community's water resources...

and with New Hampshire RSA Chapter 79-A, which states:

It is hereby declared to be in the public interest to encourage the preservation of open space, thus providing a healthful and attractive outdoor environment for work and recreation of the state's citizens, maintaining the character of the state's landscape, and conserving the land, water, forest, agricultural and wildlife resources.

These purposes and the characteristics of the Property are also consistent with the conservation goals of the Grantee, including:

- The protection of conservation land within large contiguous blocks of unfragmented lands in southeastern New Hampshire;
- The protection of surface waters, groundwater and wetlands; and
- The protection of habitat for native plant and animal species.

These significant conservation values are set forth in detail in baseline documentation (hereinafter referred to as the "Baseline Report") prepared by the Grantee and on file with the Grantee.

All of these Purposes are consistent and in accordance with the U.S. Internal Revenue Code, Section 170(h).

The Easement hereby granted with respect to the Property is as follows:

2. USE LIMITATIONS (Subject to the Reserved Rights specified in Section 3, below.)

A. The Property shall be maintained in perpetuity as open space without there being conducted thereon any residential development, industrial or commercial activities.

B. Management activities on the Property shall be subject to the following conditions:

- i. Identified within the Stewardship Plan described in Section 2.B.vi. below;
- ii. Carried out in accordance with all applicable local, state, federal, and other governmental laws and regulations;
- iii. Management activities on the Property shall be performed in accordance with the following goals:

- Protection of water quality, wetlands and riparian areas;
- Maintenance or enhancement of wildlife habitat;
- Protection of unique or fragile natural areas;
- Conservation of native plant and animal species, and natural communities;
- Maintenance of soil productivity;
- Maintenance or enhancement of scenic quality;
- Control of invasive species;
- Restoration and management of the forest to reflect pre-settlement conditions; and

- Protection of unique historic or cultural features.

iv. Management activities on the Property shall be performed in accordance with a written management plan (“Stewardship Plan”) prepared by a forester licensed by the State of New Hampshire, certified wildlife biologist, or by another similarly qualified person, said person approved in advance and in writing by the Grantee. Said plan shall have been prepared not more than ten (10) years prior to the date that any management activity is expected to commence, or shall have been reviewed and updated at least thirty (30) days prior to said date.

v. At least thirty (30) days prior to the commencement of management activities, the Grantor shall submit a written certification to the Grantee, signed by a licensed professional forester, certified wildlife biologist, or other qualified person, said other person to be approved in advance and in writing by the Grantee, that such plan has been prepared in compliance with the terms of this Easement. The Grantee may request the Grantor to submit the plan itself to the Grantee within ten (10) days of such request, but acknowledges that the plan’s purpose is to guide management activities in compliance with this Easement, and that the actual activities on the Property will determine compliance therewith.

vi. The Stewardship Plan shall address:

- The short- and long-term protection of those Purposes and values for which this Easement is granted, as described in Section 1 above;
- A statement of landowner management objectives consistent with the Purposes of this easement;
- Property specific management goals and objectives;
- The goals in Section 2.B.iii. above;
- A boundary map with access roads and natural cover types;
- A description of the natural features of the Property, including land cover, topography, soils, geology, wetlands, streams, and ponds, and wildlife habitat features;
- Identification of plant and wildlife species and natural communities of conservation concern, and how management shall enhance, or avoid detrimental impacts to, said plants, wildlife, and natural communities;
- Recommended stewardship activities; and
- Recommended schedule for implementation of management practices, including a schedule for boundary, road, and trail maintenance.

vii. Management activities shall be supervised by a licensed professional forester, certified wildlife biologist, or other qualified person approved in advance and in writing by the Grantee.

viii. Management activities shall be carried out in accordance with all applicable local, state and federal laws and regulations, and in accordance with the then current, generally accepted best management practices for the sites, soils and terrain of the Property. (For references, see *Best Management Practices for Erosion Control on Timber Harvesting Operations in New Hampshire* (J.B. Cullen, 1996), *Good Forestry in the Granite State: Recommended Voluntary Forest Management Practices for New Hampshire* (New Hampshire

Forest Sustainability and Standards Work Team, 1997) or similar successor publications.)

ix. Any cutting of trees or vegetation on the Property shall be practiced primarily to enhance or protect wildlife habitat, maintain the health of the forestland, or reasonably provide for limited educational or non-commercial recreational opportunities. In addition to satisfying one or several of those objectives, any cutting of trees or vegetation on the Property shall meet the following conditions:

- Such activities shall comply with the purposes of this easement;
- Such activities shall not damage or destroy rare species or exemplary natural communities;
- Such activities shall not degrade or otherwise impact water quality or aquatic habitats.

x. No resource management activities shall be undertaken with the specific purpose of income generation. However, it is understood that some resource management activities, as prescribed by a licensed forester, certified wildlife biologist, or other qualified person, may generate marketable forest products. Use or disposal of incidental by-products resulting from management activities shall be left to the Grantor's discretion. Also, any such resource management activities must be undertaken in accordance with industry "best practices" regarding the maintenance of forest health and are subject to the following conditions:

- Such activities shall comply with the purposes of this easement;
- Such activities shall not damage or destroy rare species or exemplary natural communities;
- Such activities shall not degrade or otherwise impact water quality or aquatic habitats.

xi. No management activity shall be undertaken in a manner that is detrimental to the Purposes of this Easement.

C. The Property shall not be subdivided and none of the individual tracts that together comprise the Property shall be conveyed separately from one another. The Grantor further covenants and agrees not to undertake any action that would have the effect of subdividing or conveying any part of the Property.

D. Subject to the right expressly reserved in Section 3.B, no structure or improvement, including, but not limited to, a dwelling (permanent, seasonal or temporary), any portion of a septic system, a road, dam, fence, bridge, culvert, shed, tennis court, swimming pool, dock, aircraft landing strip, telecommunications and/or wireless communications facility, tower, windmill, or mobile home, shall be constructed, placed or introduced onto the Property. However, ancillary structures and improvements may be constructed, placed or introduced onto the Property only as necessary in the accomplishment of the conservation, habitat management, educational, or non-commercial outdoor recreational uses of the Property, consistent with the Stewardship Plan required in Section 2.B.i., above, and provided that they are not detrimental to the Purposes of this Easement. No ancillary structure or improvement not detailed in the Stewardship Plan may be constructed, placed or introduced onto the Property without the prior review by and written approval of the Grantee.

E. No removal, filling or other disturbances of soil surface, nor any changes in topography,

surface or subsurface water systems, wetlands, or natural habitat shall be allowed unless such activities:

- i. Are commonly necessary in the accomplishment of the conservation, habitat management, educational, or non-commercial outdoor recreational uses of the Property consistent with the Stewardship Plan required in Section 2.B.i., above;
- ii. Do not harm state or federally recognized rare, threatened or endangered species, such determination of harm to be based upon information from the New Hampshire Natural Heritage Bureau or the agency then recognized by the State of New Hampshire as having responsibility for identification and/or conservation of such species; and
- iii. Are not detrimental to the Purposes of this Easement.

Prior to commencement of any such activities, all necessary federal, state, local, and other governmental permits and approvals shall be secured.

F. No outdoor advertising structures such as signs and billboards shall be displayed on the Property except as desirable or necessary in the accomplishment of the conservation, educational, or non-commercial outdoor recreational uses of the Property or for funding acknowledgement, and provided such signs are not detrimental to the Purposes of this Easement.

G. There shall be no mining, quarrying, excavation, or removal of rocks, minerals, gravel, sand, topsoil, water, or other similar materials from the Property, except in connection with any improvements made pursuant to the provisions of Section 2.D., above.

H. There shall be no dumping, injection, burning, or burial of manmade materials or materials then known to be environmentally hazardous.

I. There shall be no posting to prohibit the public from accessing and using the Property, through the auspices of the Grantee, for traditional, daytime, non-motorized, noncommercial, non-intensive outdoor educational or recreational purposes. Notwithstanding the foregoing, the Grantor retains the right to make reasonable rules and regulations for such permitted uses in the event such uses prove to be detrimental to the Purposes of this Easement and to limit or prohibit any of the following: camping, loud activities, alcohol use, open fires, use of motorized vehicles, or any other use which is detrimental to the Purposes of this Easement. The Grantor and the Grantee may mutually agree in writing to restrict access to and use of all or part of the Property for other purposes, but only to the extent and for the duration necessary to assure safety, to permit necessary maintenance, or to preserve important scenic, ecological or other conservation values of the Property.

J. Except for those of record at the time this Easement is granted, and as otherwise allowed within this Easement, there shall be no rights-of-way, easements of ingress or egress, driveways or roads constructed, developed or maintained into, on, over, under, or across the Property without the prior written approval of the Grantee.

### 3. RESERVED RIGHTS

A. The Grantor shall have the right to use and manage the Property for any and all uses consistent with the Purposes and use limitations herein, including, but not limited to the right to clear, construct and maintain trails for walking, cross country skiing and other limited low impact, transitory, non-motorized, non-commercial educational or outdoor recreational activities within and across the Property, provided said trails are consistent with and not detrimental to the Purposes of this Easement, subject to the following conditions:

- i. The creation of new trails or the relocation of existing trails shall be provided for in the Stewardship Plan.
- ii. All trails shall conform to best practices recommended by the Appalachian Mountain Club or similar trail-maintaining organization. (For reference, see *The Complete Guide to Trail Building and Maintenance* (C. Demrow, D. Salisbury, Appalachian Mountain Club) or similar successor publication.)

B. Subject to written approval from the Grantee and NOAA, which shall not be unreasonably withheld, the Grantor reserves the right to make, construct, maintain, repair, replace and relocate, at the Grantor's sole expense, a single parking area within 100 feet of Ricky Nelson Road, with a surface area up to 5,000 square feet in size. The parking area shall consist of a permeable surface and shall be constructed with the minimum disturbance necessary in accordance with all applicable local, state, federal, and other governmental laws and regulations.

C. The Grantor reserves the right to have professionally conducted archaeological activities conducted on the Property, including without limitation, survey, excavation and artifact removal, following submission of an archaeological field investigation plan to, and its approval in writing by, the State Archaeologist of the New Hampshire Division of Historic Resources (or appropriate successor official), with written notice to the Grantee. Any such archaeological investigations shall be conducted by qualified individuals who meet the Secretary of Interior's Professional Qualification Standards for Archaeology, or subsequent standards. Any area disturbed by any such activities shall be restored to substantially its prior condition within nine (9) months after such activities cease.

D. These provisions are exceptions to Section 2 above.

E. The Grantor must notify the Grantee in writing at least thirty (30) days before any exercise of the aforesaid reserved rights included in Section 3.A., Section 3.B. and Section 3.C.

### 4. NOTIFICATION OF TRANSFER, TAXES, MAINTENANCE

A. The Grantor agrees to notify the Grantee in writing no later than ten (10) days before the transfer of title to the Property or any division of ownership thereof permitted hereby.

B. The Grantee shall be under no obligation to maintain the Property or pay any taxes or assessments thereon.



5. BENEFITS, BURDENS AND ACCESS

A. The burden of the Easement conveyed hereby shall run with the Property and shall be enforceable against all future owners and tenants in perpetuity; the benefits of this Easement shall not be appurtenant to any particular parcel of land but shall be in gross and assignable or transferable only to the State of New Hampshire, the U.S. Government, or any subdivision of either of them, consistent with Section 170(c)(1) of the U.S. Internal Revenue Code of 1986, as amended, or to any qualified organization within the meaning of Section 170(h)(3) of said Code, which organization has among its purposes the conservation and preservation of land and water areas and agrees to and is capable of enforcing the conservation purposes of this Easement. Any such assignee or transferee shall have like power of assignment or transfer.

B. The Grantee shall have reasonable access to the Property and all of its parts to determine compliance with and to enforce this Easement and exercise the rights conveyed hereby and fulfill the responsibilities and carry out the duties assumed by the acceptance of this Easement.

C. The Grantee has the right to install and maintain small unlighted signs visible from public vantage points and along boundary lines for the purpose of identifying the Grantee and informing the public and abutting property owners that the Property is under the protection of this Easement.

D. The Grantee has the right to install and maintain a sign visible from a public vantage point on Ricky Nelson Road for the purpose of identifying the Grantee, acknowledging funding, and to inform the public that the Property is under the protection of this Easement.

6. ALTERNATE DISPUTE RESOLUTION

A. The Grantor and the Grantee desire that issues arising from time to time concerning prospective uses or activities in light of the conservation purposes of this Easement will first be addressed through candid and open communication between the parties rather than unnecessarily formal or adversarial action. Therefore, the Grantor and the Grantee agree that if a party becomes concerned about the consistency of any proposed use or activity with the purposes of this Easement, wherever reasonably possible, the concerned party shall notify the other party of the perceived or potential problem, and explore the possibility of reaching an agreeable resolution.

B. If informal dialog does not resolve the issue, and the Grantor agrees not to proceed with the proposed use or activity pending resolution of the on-going dispute, either party may refer the dispute to mediation by request made in writing to the other. Within ten (10) days of the receipt of such a request, the parties shall agree on a single impartial mediator who shall be an attorney licensed to practice law in the State of New Hampshire or an experienced land use or land conservation professional, both of whom must have experience with conservation easements and training in mediation. Each party shall pay its own attorneys' fees, and the costs of mediation shall be split equally between the parties.

C. If the dispute has not been resolved by mediation within sixty (60) days after delivery of

the mediation request, or the parties are unable to agree on a mediator within thirty (30) days after delivery of the mediation request, then, upon the Grantor's continued agreement not to proceed with the disputed use or activity pending resolution, either party may refer the dispute to binding arbitration by request made in writing and in accordance with New Hampshire RSA 542. Within thirty (30) days of receipt of such a request, the parties shall select a single impartial arbitrator to hear the matter. The arbitrator shall be an attorney licensed to practice law in the State of New Hampshire with experience in conservation easements and applicable training and experience as an arbitrator. Judgment upon the award rendered by the arbitrator may be enforced in any court of competent jurisdiction. The arbitrator shall be bound by and follow the substantive law of the State of New Hampshire and the applicable provisions of the US Internal Revenue Code. The arbitrator shall render a decision within thirty (30) days of the arbitration hearing.

D. If the parties do not agree to resolve the dispute by arbitration, or if the parties are unable to agree on the selection of an arbitrator, then either party may bring an action at law or in equity in any court of competent jurisdiction to enforce the terms of this Easement, to enjoin the violation by permanent injunction, to require the restoration of the Property to its condition prior to the breach, and to recover such damages as appropriate.

E. Notwithstanding the availability of mediation and arbitration to address disputes concerning the consistency of any proposed use or activity with the purposes of this Easement, if the Grantee believes that some action or inaction of the Grantor or a third party is causing irreparable harm or damage to the Property, the Grantee may seek a temporary restraining order, preliminary injunction or other form of equitable relief from any New Hampshire court of competent jurisdiction to cause the cessation of any such damage or harm pending resolution of any dispute in accordance with this Section 6.

## 7. BREACH OF EASEMENT – GRANTEE'S REMEDIES

A. If the Grantee determines that a breach of this Easement has occurred or is threatened, whether by a third party or the Grantor, the Grantee shall notify the Grantor in writing of such breach and demand corrective action to cure said breach, and, where the breach involves injury to the Property resulting from any use or activity inconsistent with the purposes of this Easement, to restore the portion of the Property so injured to its prior condition in accordance with a plan approved by the Grantee. Such notice shall be delivered in hand or by certified mail, return receipt requested.

B. If the Grantor fails, within thirty (30) days after receipt of such notice or after otherwise learning of such breach or conduct, to undertake those actions, including restoration, which are reasonably calculated to cure swiftly said breach and to repair any damage to the Property caused thereby, or fails to continue diligently to cure such breach until finally cured, the Grantee shall undertake any actions that are reasonably necessary to repair any damage in the Grantor's name or to cure such breach, including an action at law or in equity in a court of competent jurisdiction to enforce the terms of this Easement, to enjoin the violation, *ex parte* as necessary, by temporary or permanent injunction, and to require the restoration of the Property to the condition that existed prior to any such injury.

C. The Grantee shall be entitled to recover damages for violation of the terms of this Easement or injury to any conservation values protected hereby, including, but not limited to, damages for the loss of scenic, aesthetic or environmental values. Without limiting the Grantor's liability therefor, the Grantee, in its sole discretion, may apply any damages recovered to the cost of undertaking any corrective action on the Property.

D. If the Grantee, in its sole discretion, determines that circumstances require immediate action to prevent or mitigate significant damage to the conservation values of the Property, the Grantee may pursue its remedies under this Section 7 without prior notice to the Grantor or without waiting for the period provided for cure to expire.

E. The Grantee's rights under this Section 7 apply equally in the event of either actual or threatened violations of the terms of this Easement. The Grantor agrees that the Grantee's remedies at law for any violation of the terms of this Easement are inadequate and that the Grantee shall be entitled to the injunctive relief described in Section 7.B, above, both prohibitive and mandatory, in addition to such other relief to which the Grantee may be entitled, including specific performance of the terms of this Easement, without the necessity of proving either actual damages or the inadequacy of otherwise available legal remedies. The Grantee's remedies described in this Section 7 shall be cumulative and shall be in addition to all remedies now or hereafter existing at law or in equity.

F. All reasonable costs incurred by the Grantee in enforcing the terms of this Easement against the Grantor, including, without limitation, costs and expenses of suit and reasonable attorneys' fees, and any costs of restoration necessitated by the Grantor's breach of this Easement, shall be borne by the Grantor, provided that the Grantor is directly or primarily responsible for the breach; and provided further, however, that if the Grantor ultimately prevails in a judicial enforcement action, each party shall bear its own costs.

G. Forbearance by the Grantee to exercise its rights under this Easement in the event of any breach of any term thereof by the Grantor shall not be deemed or construed to be a waiver by the Grantee of such term or of any subsequent breach of the same or any other term of this Easement or of any of the Grantee's rights hereunder. No delay or omission by the Grantee in exercise of any right or remedy upon any breach by the Grantor shall impair such right or remedy or be construed as a waiver. The Grantor hereby waives any defense of laches, estoppel or prescription.

H. Nothing contained in this Easement shall be construed to entitle the Grantee to bring any action against the Grantor for any injury to or change in the Property resulting from causes beyond the Grantor's control, including, but not limited to, unauthorized actions by third parties, natural disasters such as fire, flood, storm, disease, infestation, and earth movement, or from any prudent action taken by the Grantor under emergency conditions to prevent, abate or mitigate significant injury to the Property resulting from such causes.

I. The Grantee and the Grantor reserve the right, separately or collectively, to pursue all legal and/or equitable remedies, as set forth in this Section 7, against any third party responsible

for any actions detrimental to the conservation purposes of this Easement.

8. DISCRETIONARY CONSENT

A. The Grantee's consent for activities otherwise prohibited herein may be given under the following conditions and circumstances. If, owing to unforeseen or changed circumstances, any of the activities listed in Section 2 are deemed desirable by the Grantor and the Grantee, the Grantee may, in its sole discretion, give permission for such activities, subject to the limitations herein. Such requests for permission shall be in writing and shall describe the proposed activity in sufficient detail to allow the Grantee to judge the consistency of the proposed activity with the purposes of this Easement. The Grantee may give its permission only after notifying NOAA or its successor agencies and if it determines, in its sole discretion, that such activities (i) do not violate the Purposes of this Easement and (ii) either enhance or do not impair any significant conservation interests associated with the Property.

B. Notwithstanding the foregoing, the Grantor and the Grantee shall have no right or power to agree to any activities that would result in the termination of this Easement or to allow any residential, commercial or industrial structures, or any commercial or industrial activities, not provided for above.

9. NOTICES

All notices, requests and other communications required to be given under this Easement shall be in writing, except as otherwise provided herein, and shall be delivered in hand or sent by certified mail, postage prepaid, return receipt requested to the appropriate address set forth above or at such other address as the Grantor or the Grantee may hereafter designate by notice given in accordance herewith. Notice shall be deemed to have been given when so delivered or so mailed.

10. SEVERABILITY

If any provision of this Easement, or the application thereof to any person or circumstance, is found to be invalid by a court of competent jurisdiction, by confirmation of an arbitration award or otherwise, the remainder of the provisions of this Easement or the application of such provision to persons or circumstances other than those to which it is found to be invalid, as the case may be, shall not be affected thereby.

11. SEPARATE PARCEL

The Grantor agrees that for the purpose of determining compliance with any present or future regulation (other than those governing N.H. Current Use Assessment under RSA 79-A), bylaw, order, or ordinance (within this Section referred to as "legal requirements") of the Town of Strafford, the State of New Hampshire or any other governmental unit, the Property shall be deemed a separate parcel of land and shall not be taken into account in determining whether any land of the Grantor, other than the Property, complies with any said legal requirements. The Property shall not be taken into account to satisfy in whole or in part any of said legal

requirements or any area, density, setback, or other dimensional standard applicable to such land.

12. CONDEMNATION

A. Whenever all or part of the Property is taken in exercise of eminent domain by public, corporate or other authority so as to abrogate in whole or in part the Easement conveyed hereby, or whenever all or a part of the Property is lawfully sold without the restrictions imposed hereunder in lieu of condemnation or exercise of eminent domain, the Grantor and the Grantee shall thereupon act jointly to recover the full damages resulting from such taking or lawful sale with all incidental or direct damages and expenses incurred by them thereby to be paid out of the damages recovered.

B. The balance of the land damages recovered from such taking or lawful sale in lieu of condemnation or exercise of eminent domain shall be divided between the Grantor and the Grantee in proportion to the fair market value of their respective interests in that part of the Property condemned on the date of execution of this Easement. For this purpose and that of any other judicial extinguishment of this Easement, in whole or in part, the Grantee's interest shall be the amount by which the fair market value of the Property immediately prior to the execution of this Easement is reduced by the use limitations imposed hereby. The value of the Grantee's interest shall be determined by an appraisal prepared by Arol Charbonneau, Jr., Certified General Appraiser No. NHCG-203 within one year of the date of this Easement, and submitted to the Grantee, the Grantor, and NOAA. Any increase in value attributable to improvements made after the date of the Conservation Easement shall accrue to the party who made the improvements.

C. The Grantor shall use its share of the proceeds to reimburse NOAA or its successor agencies for the share of the value of the match that was provided by the value of the underlying fee interest in this property to meet the Town of Strafford's obligations under NOAA award #NA08NOS4190438.

D. The Grantee shall use its share of the proceeds in a manner consistent with and in furtherance of one or more of the conservation purposes set forth herein.

13. ADDITIONAL EASEMENT

Should the Grantor determine that the expressed purposes of this Easement could better be effectuated by the conveyance of an additional easement, the Grantor may execute an additional instrument to that effect after notifying NOAA or its successor agencies, provided that the conservation purposes of this Easement are not diminished thereby and that a public agency or qualified organization described in Section 5.A, above, accepts and records the additional easement.

The Grantee, by accepting and recording this Easement, agrees to be bound by and to observe and enforce the provisions hereof and assumes the rights and responsibilities herein granted to and incumbent upon the Grantee, all in the furtherance of the conservation purposes for which this Easement is delivered.

14. BASELINE DOCUMENTATION AND STEWARDSHIP RESPONSIBILITIES OF BEAR-PAW REGIONAL GREENWAYS

To facilitate the fulfillment of its responsibilities under this Easement, Bear-Paw Regional Greenways shall be responsible for the following (which shall include, but not be limited to):

- Producing the baseline information included in the Baseline Report;
- Maintaining baseline information and annual monitoring of the Property in accordance with applicable policies and guidelines, such as the Land Trust Standards and Practices of the Land Trust Alliance; and
- Providing an annual monitoring report to the Town of Strafford and NOAA or their successors indicating compliance with the terms of this Easement and/or actions necessary for compliance.

In the event Bear-Paw Regional Greenways is unable or unwilling to fulfill the stewardship responsibilities as described above, the stewardship responsibilities will become the responsibility of another qualified organization within the meaning of Section 107(h)(3) of the U.S. Internal Revenue Code (1986, as amended), which organization has among its purposes the conservation and preservation of land and water areas, but only after notifying NOAA or its successor agencies.

IN WITNESS WHEREOF, we have hereunto set our hands this 1 day of August, 2008.

TOWN OF STRAFFORD

By: [Signature]

Title: Selectman R. STEPHEN LEIGHTON

Duly Authorized  
Date: 8/1/08

By: [Signature]

Title: Wynn Sweet Selectman

Duly Authorized  
Date: 8.1.08

By: [Signature]

Title: Stephanie M. Gray Selectman

Duly Authorized  
Date: 08/01/08

STATE OF NEW HAMPSHIRE  
COUNTY OF STRAFFORD, SS

On this 1 day of August, 2008, before me the undersigned officer, personally appeared R. STEPHEN LEIGHTON, WYNN M. SWEET, + STEPHANIE M. GRAY who acknowledged themselves to be Selectmen of the Town of Strafford, and acting in said capacity, and being authorized so to do, executed the foregoing instrument on behalf of the Town of Strafford as its voluntary act and deed for the purposes therein contained.

Before me, [Signature]  
Justice of the Peace/Notary Public

My commission expires: 12.21.10

CAROLYN D. AUGER  
Notary Public - New Hampshire  
My Commission Expires December 21, 2010

ACCEPTED: BEAR-PAW REGIONAL GREENWAYS

By: Harmony W. Anderson Harmony W. Anderson

Title: Director  
Duly Authorized

Date: August 1, 2008

By: Philip Auger Philip AUGER

Title: Director  
Duly Authorized

Date: 8/1/08

STATE OF NEW HAMPSHIRE  
COUNTY OF STRAFFORD, SS

On this 1 day of August, 2008, before me the undersigned officer, personally appeared Harmony W. Anderson and Philip Auger who acknowledged themselves to be officers of Bear-Paw Regional Greenways, and acting in said capacity, and being authorized so to do, executed the foregoing instrument on behalf of Bear-Paw Regional Greenways as its voluntary act and deed for the purposes therein contained.

Before me, Carolyn D. Auger  
Justice of the Peace/Notary Public

My commission expires: 12-21-10

CAROLYN D. AUGER  
Notary Public - New Hampshire  
My Commission Expires December 21, 2010



## Appendix A

The "Property" subject to this Easement includes two certain parcels of woodland adjacent to the northerly side of Ricky Nelson Road, so-called, situate in Town of Strafford, County of Strafford, State of New Hampshire, consisting of approximately 79.44 acres, shown on a plan entitled "Standard Boundary Survey and Conservation Easement Plan, Ricky Nelson Road", prepared by T.D. Brouillette Land Surveying, dated May 5, 2008, to be recorded herewith and more particularly bounded and described as follows:

Tract 1 (referred to as "Tax Map 8 Lot 10" on the Plan)

Beginning at the southwesterly corner of said parcel on the northerly side of Ricky Nelson Road at the land of Jeffrey and Julie Thorne at a drill hole at the end of a stonewall,  
thence N 33° 39'16" west 89.38 feet following a stonewall along land of Thorne to a drill hole;  
thence N 14°45'47" west 91.38 feet following a stonewall to corner in said wall;  
thence N 63°01'27" east 35.71 feet to a drill hole in the corner of said wall;  
thence N 14°32'35" west 75.40 feet following a stonewall to a drill hole at the end of said wall;  
thence N 06°02'23" west 159.51 feet to a drill hole at the end of a stonewall;  
thence N 20°19'27" west 35.47 feet to a drill hole at the corner of said stonewall;  
thence S 65°05'36" west 16.24 feet following the stonewall to a drill hole at the end of said stonewall;  
thence N 39°57'53" west 60.94 feet to a stone pile;  
thence N 44°27'05" west 46.47 feet to the end of a stonewall;  
thence N 38°58'25" west 20.54 feet following the stonewall to a point;  
thence N 27°59'20" west 25.85 feet following the stone wall to a drill hole at the corner of said stonewall, previous ten courses being along the land of Thorne;  
thence N 46°44'39" east 148.99 feet following a stonewall along land of Maura and Eric Marshall to a drill hole;  
thence N 39°07'00" east 38.29 feet following a stonewall to a drill hole;  
thence N 50°14'42" east 175.05 feet following a stonewall to a drill hole;  
thence N 52°24'01" east 102.91 feet following a stonewall to a drill hole at the end of said stonewall;  
thence N 49°22'48" east 66.90 feet to a drill hole at the end of a wall;  
thence N 48°16'38" east 293.08 feet following a stonewall to a drill hole at the end of said stonewall;  
thence N 47°50'22" east 126.78 feet to an iron rod in a stone pile;  
thence N 49°53'50" east 302.37 feet crossing a trail to a drill hole in the end of a stonewall;  
thence N 49°36'15" east 632.63 feet to an iron rod in a stone pile;  
thence N 47°16'22" east 176.06 feet to an iron rod at the base of a 12-inch oak with barbed wire;  
thence N 48°06'30" east 317.81 feet to an iron rod in a 40-inch hemlock stump;  
thence N 48°06'30" east 23.67 feet to an iron rod, the previous twelve courses being along land of Ronald and Roberta Siderchuck and Maura and Eric Marshall;

thence S 35°09'11" east 586.66 feet along land of Michael Eliasberg to an iron rod;  
thence N 47°14'19" east 261.51 feet along land of Eliasberg to an iron rod;  
thence S 36°45'31" east 692.90 feet along land of William and Joyce King to an iron rod;  
thence S 55°11'48" east 66.37 feet along land of King to an iron rod;  
thence S 11°57'26" west 240.65 feet along land of Lori Shiere to a 12-inch oak with  
barbed wire;  
thence S 01°14'24" west 137.65 feet along land of Shiere to a 6-inch beech with barbed  
wire;  
thence S 06°37'59" west 51.02 feet along land of Shiere to a drill hole at the end of a  
stonewall;  
thence S 41°15'55" east 16.92 feet following a stonewall along the land of Shiere to a  
drill hole at a tee intersection of said stonewall, being on the northerly side of Old Bunker Road;  
thence S 73°10'55" west 45.46 feet following a stonewall along Old Bunker Road to a  
drill hole;  
thence S 55°50'22" west 19.32 feet following a stonewall along Old Bunker Road to a  
drill hole;  
thence S 43°30'57" west 23.50 feet following a stonewall along Old Bunker Road to a  
drill hole at the end of said stonewall;  
thence S 48°57'55" west 62.47 feet to a drill hole;  
thence S 49°10'40" west 150.66 feet to a drill hole;  
thence S 50°12'57" west 259.39 feet to a drill hole at the end of a wall;  
thence S 53°04'14" west 32.93 feet along a stonewall to a drill hole;  
thence S 50°13'43" west 164.34 feet along a stonewall to a drill hole;  
thence S 50°49'46" west 137.69 feet along a stonewall to a drill hole;  
thence S 51°15'48" west 49.90 feet along a stonewall to a drill hole;  
thence S 50°14'53" west 113.10 feet along a stonewall to a drill hole at the end of said  
wall;  
thence S 48°51'48" west 34.25 feet to a drill hole at the end of a stonewall, the previous  
nine courses being along the northerly side of Old Bunker Road;  
thence N 39°52'47" west 19.12 feet along land of William F. Nelson to a point in a  
corner of a stonewall;  
thence N 34°56'59" west 46.74 feet to a corner in said stonewall;  
thence N 73°04'13" west 19.15 feet along a stonewall to a drill hole;  
thence N 40°34'15" west 179.81 feet along stonewall to a drill hole;  
thence N 42°59'37" west 41.67 feet along a stonewall to a point;  
thence N 46°29'32" west 64.51 feet along a stonewall to a point;  
thence N 43°48'52" west 70.50 feet along a stonewall to a drill hole at the end of said  
stonewall;  
thence S 67°58'06" west 38.16 feet to the end of a stonewall;  
thence S 74°35'44" west 24.41 feet along a stonewall to a point;  
thence S 74°35'44" west 12.84 feet following a stonewall to the end of said stonewall;  
thence N 40°55'42" west 51.93 feet to a drill hole at the end of a stonewall;  
thence N 40°55'42" west 25.24 feet following a stonewall to a drill hole at the end of said  
stonewall;

thence N 37°11'18" west 13.57 feet to a drill hole at the end of a stonewall;  
 thence N 41°20'11" west 101.72 feet following a stonewall to a drill hole;  
 thence N 40°16'33" west 106.48 feet following a stonewall to a drill hole;  
 thence N 45°46'18" west 100.86 feet following a stonewall to a drill hole;  
 thence N 47°09'38" west 149.16 feet following a stonewall to a drill hole;  
 thence N 69°31'04" west 45.21 feet following a stonewall to a drill hole;  
 thence S 58°57'02" west 79.10 feet following a stonewall to a drill hole;  
 thence S 60°59'37" west 68.17 feet following a stonewall to a drill hole;  
 thence S 72°05'11" west 59.22 feet along a stonewall to a drill hole;  
 thence S 58°18'37" west 47.57 feet along a stonewall to a drill hole;  
 thence S 26°28'09" west 33.87 feet along a stonewall to a drill hole;  
 thence S 34°20'13" east 26.37 feet along a stonewall to a drill hole;  
 thence S 36°40'38" east 149.76 feet along a stonewall to a drill hole;  
 thence S 43°32'22" east 51.41 feet along a stonewall to a point;  
 thence S 37°53'55" east 42.97 feet along a stonewall to a drill hole;  
 thence S 32°11'51" east 107.15 feet along a stonewall to a point;  
 thence S 34°29'18" east 73.11 feet along a stonewall to a point;  
 thence S 41°54'58" east 77.54 feet along a stonewall to a point;  
 thence S 47°31'35" east 42.91 feet along a stonewall to a point;  
 thence S 62°52'00" east 59.14 feet along a stonewall to a tee intersection in said  
 stonewall at the northerly side of Old Bunker Road, the previous thirty-one courses being along  
 land of William Nelson;  
 thence S 49°10'00" west 33.48 feet following a stonewall along Old Bunker Road to a  
 drill hole;  
 thence S 56°49'38" west 65.70 feet following a stonewall to a drill hole;  
 thence S 54°52'41" west 44.87 feet following a stonewall along Old Bunker Road to a  
 drill hole at the end of said wall;  
 thence S 50°31'02" west 82.28 feet along Old Bunker Road to an iron rod;  
 thence S 50°31'02" west 19.29 feet along Old Bunker Road to a drill hole set in a 4-foot  
 diameter boulder at the corners of Ricky Nelson Road and Old Bunker Road;  
 thence N 87°41'50" west 39.59 feet along the northerly side of Ricky Nelson Road to an  
 iron rod;  
 thence following a curve curving to the left following the northerly side of Ricky Nelson  
 Road with a central angle of 5°35'10" and radius of 1,940.00 feet and a length of 189.15 feet to a  
 drill hole;  
 thence S 85°31'15" west 226.66 feet along the northerly side of Ricky Nelson Road to an  
 iron rod;  
 thence S 84°19'23" west 207.12 feet along the northerly side of Ricky Nelson Road to a  
 3/4-inch iron pin in a 4-foot diameter boulder;  
 thence S 84°40'33" west 211.19 feet along the northerly side of Ricky Nelson Road to a  
 drill hole;  
 thence S 84°00'11" west 19.27 feet along the northerly side of Ricky Nelson Road to a  
 drill hole at the end of a stonewall, being the point of beginning.

Said parcel containing 72.116 acres.

Tract 2 (referred to as "Part of Tax Map 8 Lot 10" on the Plan)

Another parcel of land being northwesterly of the previously described tract and not adjacent to, the true point of beginning being an iron rod set in the ground located N 35°09'11" west 199.50 feet from an iron rod at the northwest corner of the previously described parcel;

thence N 35°09'11" west 795.67 feet along land of Ronald and Roberta Siderchuck to a drill hole at the end of a stonewall;

thence N 35°29'38" west 135.96 feet along a stone wall and land of Siderchuck to a drill hole in said stonewall at the base of a 24-inch blazed red oak;

thence N 52°32'15" east 162.55 feet, said course going through said 24-inch blazed red oak along land of Russell and Carol Nagle to an iron rod at the southerly edge of the Isinglass River;

thence following the southerly edge of the Isinglass River 1,180 feet, more or less, to a drill hole in a 4-foot diameter boulder at the river's edge, said drill hole being S 50°58'02" east 917.92 feet from the previously mentioned iron rod at the southerly side of the Isinglass River;

thence S 48°26'23" west 17.34 feet along land of Michael Eliasberg to an iron rod;

thence S 47°47'59" west 59.61 feet to a drill hole at the end of a stonewall;

thence S 46°05'59" west 49.37 feet along a stonewall to a drill hole;

thence S 49°18'30" west 14.69 feet to a drill hole at the end of a stonewall;

thence S 47°47'42" west 153.55 feet to a 24-inch twin maple with barbed wire;

thence S 46°39'49" west 28.61 feet to a 30-inch birch with barbed wire;

thence S46°10'59" west 92.30 feet to an iron rod, said iron rod being the point of beginning, the previous seven courses all being along land of Eliasberg.

Said parcel containing 7.316 acres.

MEANING AND INTENDING to describe the premises conveyed by the Warranty Deed of The Carolyn S. Bedford Revocable Trust of 1990, to the Town of Strafford, dated July 29, 2008, and recorded in the Strafford County Registry of Deeds at Book 3667 and Page 404 and as "Tract 16" and "Tract 17" in the Quitclaim Deed of Carolyn S. Bedford, married, to Carolyn S. Bedford, Trustee of The Carolyn S. Bedford Revocable Trust of 1990, dated October 30, 2007, and recorded in the Strafford County Registry of Deeds, Book 3591, Page 26.

**LEGEND**

- BOOK NO./PAGE NO.  
STRAFFORD COUNTY REGISTRY OF DEEDS  
PROPERTY LINE  
MAP/LOT NUMBER  
CURVE TABLE  
DRILL HOLE  
IRON PIPE  
IRON ROD  
LENGTH  
LINE TABLE NUMBER  
NEW ENGLAND TELEPHONE  
SQUARE FEET  
STONEMALL  
OVERHEAD UTILITIES  
WITH WIRE  
WITH WIRE  
EXISTING IRON PIPE/ROD  
EXISTING DRILL HOLE  
UTILITY POLE  
STONE WALL

LINE	BEARING	LENGTH
L81	N45°29'05"E	135.41
L82	N83°29'05"E	363.00
L83	N61°29'05"E	173.25
L84	N09°29'05"E	68.00
L85	N85°30'55"W	116.50
L86	N28°30'55"W	77.25
L129	S33°48'53"W	24.00
L130	S33°48'53"W	1483.45
L131	S33°59'41"W	233.33

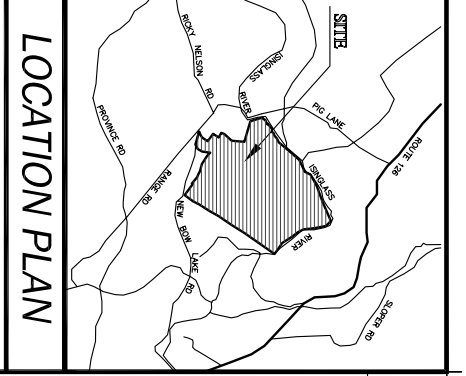
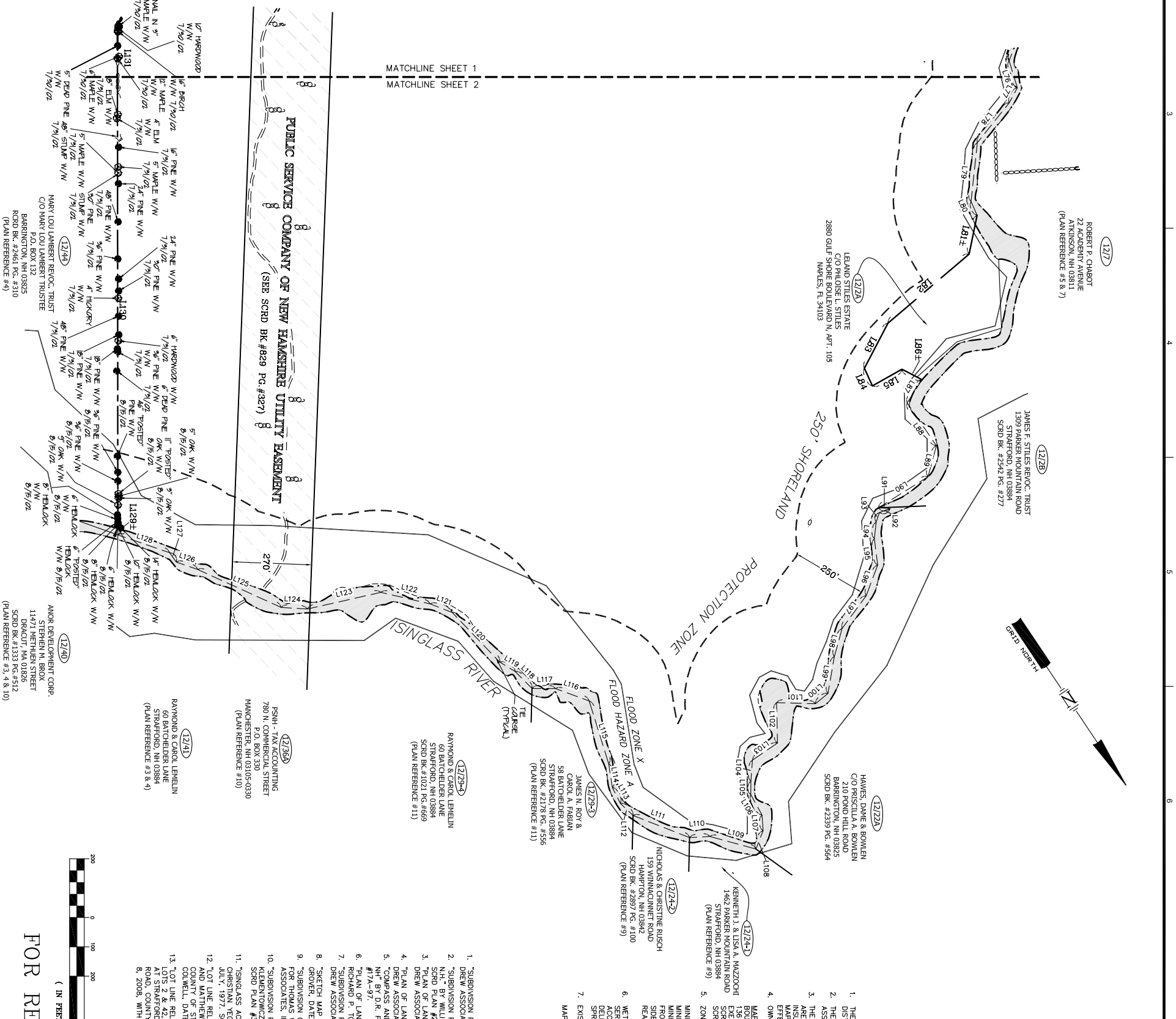
THE COURSES

LINE	BEARING	LENGTH
L76	N6°57'08"E	96.15
L77	N62°00'48"E	58.13
L78	N72°36'55"E	174.13
L79	N39°24'59"E	201.64
L80	N68°37'00"E	93.84
L87	N68°37'00"E	93.84
L88	N00°21'8"W	176.36
L89	N48°49'34"E	109.86
L90	S88°07'41"E	199.18
L91	N53°00'55"W	39.86
L92	S77°30'44"E	39.52
L93	N52°26'47"E	34.16
L94	N40°08'27"E	56.21
L95	N69°42'41"E	91.04
L96	N51°19'05"E	119.35
L97	N49°15'48"E	98.12
L98	N49°15'48"E	98.12
L99	N43°55'09"E	127.30
L100	N84°19'42"E	55.32

LINE	BEARING	LENGTH
L101	S5°28'16"E	132.75
L102	N32°30'28"E	137.66
L103	N89°31'21"E	103.12
L104	N87°04'44"E	71.64
L105	N34°26'30"E	46.26
L106	N04°53'32"E	79.17
L107	N90°02'42"E	53.61
L108	N90°02'42"E	53.61
L109	S40°32'48"E	163.17
L110	S89°26'31"E	68.90
L111	S44°45'10"E	206.21
L112	S12°26'02"E	59.82
L113	S07°06'08"W	60.68
L114	S95°11'59"W	80.98
L115	S16°36'51"W	224.55
L116	S35°55'35"E	122.57
L117	S55°54'20"E	79.86
L118	S10°50'18"E	81.24
L119	S24°43'10"E	61.91
L120	S49°49'34"E	80.68
L121	S34°30'34"E	80.68
L122	S42°34'01"E	172.23
L123	S88°56'59"E	256.54
L124	S82°38'46"E	89.72
L125	S31°41'47"E	312.59
L126	S36°47'31"E	76.87
L127	S02°00'55"E	39.29
L128	S37°09'54"E	186.12

PURSUANT TO NEW HAMPSHIRE REVISED STATUTES ANNOTATED 876:19, III AND IV AND 672:1-14:  
I CERTIFY THAT THIS SURVEY PLAT IS NOT A SUBDIVISION PURSUANT TO THIS TITLE AND THAT THE LINES OF STREETS STREETS OR WAYS ALREADY ESTABLISHED AND THAT NO NEW WAYS ARE SHOWN.  
I CERTIFY THAT THIS SURVEY AND PLAN WERE PREPARED BY THOSE UNDER MY DIRECT SUPERVISION AND ARE THE RESULT OF A FIELD SURVEY CONDUCTED IN MAY 2008. THIS SURVEY CONFORMS TO THE ACCURACY REQUIREMENTS FOR A NEW HAMPSHIRE URBAN SURVEY.  
A COPY OF THIS PLAN HAS BEEN FILED WITH THE LOCAL PLANNING BOARD.

LICENSED LAND SURVEYOR DATE

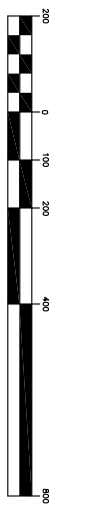


**NOTES:**

- THE PARCELS ARE LOCATED IN THE AGRICULTURAL-RESIDENTIAL DISTRICT.
- THE PARCELS ARE SHOWN ON THE TOWN OF STRAFFORD ASSESSOR'S MAP 12 AS LOTS 2 AND 42.
- THE PARCELS ARE LOCATED IN ZONES A & X (X ZONE IS AREAS OF MINIMAL FLOODING) AS SHOWN ON FLOOD INSURANCE RATE MAP, STRAFFORD COUNTY, NEW HAMPSHIRE, MAP NUMBERS 3307001900 AND 3307002800 WITH AN EFFECTIVE DATE OF MAY 17, 2003.
- OWNERS OF RECORD:  
MAP 12 LOTS 2 & 42  
BOULDERS AT STRAFFORD, LLC  
1602 PARKER MOUNTAIN ROAD  
STRAFFORD, NH 03884  
SCRD BK #3127 PG.#0794
- ZONING REQUIREMENTS:  
MINIMUM LOT SIZE: 2 ACRES SUITABLE FOR DEVELOPMENT  
MINIMUM FRONT YARD SETBACKS: 40'  
FRONT YARD: 25'  
SIDE YARD: 25'  
REAR YARD:  
6. WETLAND DELINEATION WAS DONE BY GORE ENVIRONMENTAL SERVICES AND ENGINEERS, INC. IN ACCORDANCE WITH THE 1987 COMPS OF ENGINEERS WETLAND DELINEATION MANUAL AND FIELD LOCATED BY MILLETTE, SHRADE & COLWELL, INC.  
7. EXISTING TOTAL PARCEL AREA:  
MAP 12 LOTS 2 & 42 = 419,456.704 S.F.  
= 9.5610 ACRES

**PLAN REFERENCES:**

- "SUBDIVISION PLAN ROGER LAPANNE STRAFFORD, N.H." BY FREDERICK E. DREW ASSOCIATES, DATED JANUARY 1984, SCRD PLAN #2-135.
- "SUBDIVISION PLAN FOR ROGER LAPANNE, RANGE ROAD, STRAFFORD, SCRD PLAN #22-9." MONWELL L.L.S. #584, DATED OCTOBER 20, 1982.
- "PLAN OF LAND LILLIAN B. MERRILL STRAFFORD, N.H." BY FREDERICK E. DREW ASSOCIATES, DATED DECEMBER, 1975, SCRD PLAN #21-43.
- "PLAN OF LAND EDWARD ROTONDI STRAFFORD, N.H." BY FREDERICK E. DREW ASSOCIATES, DATED DECEMBER, 1976, SCRD PLAN #16A-80.
- "COMPASS AND TAPE PERIMETER OF: WES WHEELER LOT IN: STRAFFORD, NH" BY DR. POPPMA, R.L.S., DATED NOVEMBER, 1976, SCRD PLAN #17A-97.
- "LAND OF ROGER & EILEEN LAPANNE, STRAFFORD, NH" BY RICHARD P. WHELETER STRAFFORD, SCRD PLAN #14-45.
- "SUBDIVISION PLAN WESLEY WHEELER STRAFFORD, N.H." BY FREDERICK E. DREW ASSOCIATES, DATED SEPTEMBER, 1981, SCRD PLAN #22A-113.
- "SKETCH MAP OF FOSSILL PRIVILEGE, STRAFFORD, N.H.", PLAN #29, GROVER, DATED DECEMBER 22, 1920, "POCKET #4" FOLDER #1.
- "SUBDIVISION OF LAND N.H. ROUTE 126 -- RIDGE ROAD, STRAFFORD N.H. FOR THOMAS W. & DEBORAH H. BURWELL" BY DURON, YERRA AND ASSOCIATES, INC., DATED SEPTEMBER 13, 1991, SCRD PLAN #41-73.
- "SUBDIVISION PLAN MERRILL LOT, STRAFFORD, N.H. OWNER: RICHARD S. KLEINOWICZ" BY FREDERICK E. DREW ASSOCIATES, DATED MAY, 1986, SCRD PLAN #30-69.
- "SINGLASS AGREE" PROPOSED SUBDIVISION FOR: WILLIAM RICHY & CHRISTIAN YEGEN IN: STRAFFORD, N.H." BY DR. POPPMA, R.L.S., DATED JULY, 1977, SCRD PLAN #17D-107.
- "LOT LINE RELOCATION PLAN FOR THE BOULDERS AT STRAFFORD, LLC AND MATTHEW S. & DONNA L. LAPANNE, RANGE ROAD, PIG LANE, COUNTY OF STRAFFORD, STRAFFORD, NH" BY MILLETTE, SHRADE & COLWELL, DATED AUGUST 31, 2004, SCRD PLAN #78-43.
- "LOT LINE RELOCATION PLAN, TAX MAP 8 LOT 20 AND TAX MAP 12 LOT 42, PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE UTILITY EASEMENT, RANGE ROAD, COUNTY OF STRAFFORD, STRAFFORD, NH" BY M.S.C. DATED MAY 8, 2008, WITH REVISION 2 DATED 06/09/08.



FOR REVIEW

**MSC**  
CIVIL ENGINEERS & LAND SURVEYORS, LLC

JOHN HART MANSON  
403 THE HILL  
P.O. Box 427  
PORTSMOUTH, NH 03802-0427

PHONE: 603-431-2222  
FAX: 603-431-0910  
www.mscengineers.com

REV.	DATE	DESCRIPTION

DRAWN BY: CPS CHECKED BY: JCC

TAX MAP 12 LOTS 2 & 42  
PROPERTY OF  
**BOULDERS AT STRAFFORD, LLC**  
PIG LANE, RANGE ROAD & NEW BOW LAKE ROAD  
COUNTY OF STRAFFORD  
NEW HAMPSHIRE  
STRAFFORD

DATE: JUNE 10, 2008  
**SHEET 2 OF 2**  
PROJECT NO. 08043  
SCALE: 1" = 200'

**LEGEND**

BOOK NO./PAGE NO.  
STAFFORD COUNTY REGISTRY OF DEEDS  
PROPERTY LINE

MAP/LOT NUMBER

CURVE TABLE

DRILL HOLE

IRON PIPE

IRON ROD

LENGTH

NEW ENGLAND TELEPHONE

SQUARE FEET

STONEWALL

OVERHEAD UTILITIES

WITH WIRE

EXISTING IRON PIPE/ROD

EXISTING DRILL HOLE

GUY POLE

UTILITY POLE

STONE WALL

LINE	BEARING	LENGTH
L1	N52°20'53"W	288.55
L2	N54°02'43"W	192.08
L3	N63°16'43"W	32.66
L4	S31°53'22"W	21.32
L5	N53°15'53"W	114.05
L6	N58°23'09"W	38.27
L7	N58°23'09"W	38.27
L8	N54°08'16"W	59.61
L9	N33°34'50"W	22.81
L10	N46°02'08"W	23.09
L11	N59°34'19"W	31.68
L12	N67°52'28"W	60.49
L13	N68°03'15"W	25.67
L14	N65°08'52"W	25.49
L15	N65°08'00"W	20.21
L16	N53°37'15"W	23.89
L17	N19°32'15"W	7.96
L18	N55°34'31"W	35.57
L19	N55°34'31"W	35.57
L20	N179°50'49"W	17.48
L21	N100°59'50"W	128.77
L22	N100°28'29"E	39.87
L23	N61°00'03"W	122.32
L24	S34°28'25"W	40.89
L25	N52°56'08"W	90.19
L26	N54°27'46"W	77.70
L27	N67°12'46"W	39.49
L28	N42°11'43"W	35.54
L29	N53°33'34"W	40.88
L30	N58°23'09"W	38.27
L31	N58°23'09"W	38.27
L32	S14°37'24"W	196.01
L33	S30°46'47"W	139.60
L34	S58°21'03"W	137.80
L35	N107°38'50"W	450.05
L36	N53°31'33"W	12.33
L37	N67°39'29"E	130.51
L38	N33°09'50"E	135.66
L39	N33°09'50"E	17.58
L40	N53°24'07"W	320.47
L41	N33°01'21"E	230.97
L42	N53°01'21"E	6.23
L43	N53°01'21"E	6.23
L44	N43°17'17"W	56.23
L45	N82°14'00"W	21.94
L46	N1°53'23"W	19.66
L47	N2°55'21"E	114.11
L48	N42°51'48"E	348.91
L49	N04°41'39"E	144.29
L50	N04°41'39"E	291.33

THE COURSES

LINE	BEARING	LENGTH
L65	N32°19'18"E	15.07
L66	N44°13'12"E	60.41
L67	N54°28'34"E	82.65
L68	N7°34'07"E	143.47
L69	N67°49'58"E	162.32
L70	N52°44'39"E	238.09
L71	N38°51'10"E	98.75
L72	N14°34'15"E	91.61
L73	N42°48'50"E	40.34
L74	N42°48'50"E	124.69
L75	N54°48'48"E	96.15
L76	N16°57'08"E	96.15
L77	N67°00'48"E	58.13

CURVE TABLE

CURVE	CENTRAL ANGLE	RADIUS	LENGTH
C1	63°48'36"	25.00'	27.65'
C2	89°28'39"	275.00'	141.56'
C3	5°58'38"	255.00'	28.60'

PURSUANT TO NEW HAMPSHIRE REVISED STATUTES ANNOTATED 6:761:18, III AND IV AND 6:22:1-74:

"I CERTIFY THAT THIS SURVEY PLAT IS NOT A SUBDIVISION AND WAYS SHOWN ARE THOSE OF PUBLIC OR PRIVATE NEW WAYS ARE SHOWN."

"I CERTIFY THAT THIS SURVEY AND PLAN WERE PREPARED BY THOSE UNDER MY DIRECT SUPERVISION AND ARE THE RESULT OF A FIELD SURVEY CONDUCTED IN MAY, 2008. THIS SURVEY CONFORMS TO THE ACCURACY REQUIREMENTS FOR A NEW HAMPSHIRE URBAN SURVEY."

A COPY OF THIS PLAN HAS BEEN FILED WITH THE LOCAL PLANNING BOARD.

LICENSED LAND SURVEYOR

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THIS IS A NON-CONTRACTUAL  
CONVEYANCE PURSUANT TO NEW  
HAMPSHIRE RSA 78-B:2 AND IS  
EXEMPT FROM THE NEW HAMPSHIRE  
REAL ESTATE TRANSFER TAX.

Doc # 0036510 Aug 1, 2008 11:33 AM  
Book 3667 Page 0384 Page 1 of 20  
Register of Deeds, Strafford County

## CONSERVATION EASEMENT DEED

**TOWN OF STRAFFORD**, a municipal corporation situated in the County of Strafford, State of New Hampshire, acting through its Conservation Commission pursuant to New Hampshire RSA 36-A:4, with a mailing address of Post Office Box 23, Strafford, New Hampshire 03815 (hereinafter referred to as the "Town" or the "Grantor", which word where the context requires includes the plural and shall, unless the context clearly indicates otherwise, include the Grantor's executors, administrators, legal representatives, devisees, heirs, successors and assigns),

for consideration paid, with WARRANTY covenants, grants in perpetuity to

**BEAR-PAW REGIONAL GREENWAYS**, a New Hampshire not-for-profit corporation, situated in the County of Rockingham, State of New Hampshire, with a mailing address of Post Office Box 19, Deerfield, New Hampshire 03037 (together with its employees, agents, contractors, successors, and assigns hereinafter collectively referred to as "Bear-Paw" or "Grantee", which shall, unless the context clearly indicates otherwise, include the Grantee's successors and assigns),

the **CONSERVATION EASEMENT** (herein referred to as the "Easement") hereinafter described with respect to that certain parcel of land (herein referred to as the "Property") being unimproved land consisting of approximately 286 acres situated on the northeasterly side of Range Road and New Bow Lake Road in the Town of Strafford, County of Strafford, State of New Hampshire, as shown on a plan entitled "Tax Map 12 Lots 2 & 42, Property of Boulders at Strafford, LLC, Pig Lane, Range Road & New Bow Lake Road", recorded at the Strafford County Registry of Deeds as Plan Numbers 95-001 and 95-002 (the "Plan"), and more particularly bounded and described in Appendix "A" attached hereto and made a part hereof.

This property was purchased, in part, with funds from a federal financial assistance award granted to the Town of Strafford through the National Oceanic and Atmospheric Administration's (NOAA) Coastal and Estuarine Land Conservation Program (CELCP) (award #NA08NOS4190438). This easement provides additional protection to the property, and further ensures that it shall be managed for the conservation purposes and uses under which it was entered into the Coastal and Estuarine Land Conservation Program. Bear-Paw Regional Greenways is responsible for monitoring and enforcing the provisions of this Easement.

1. PURPOSES

The Easement hereby granted is pursuant to NH RSA 477:45-47, exclusively for the following conservation purposes (herein referred to as the "Purposes") for the public benefit:

A. The perpetual protection of the quality of groundwater and surface water resources under and on the Property in order to safeguard the environmental values of the Property which are dependent on water quality and quantity. Protection of the Property will also help maintain the quality of water in the Isinglass River, an important watershed of coastal New Hampshire;

B. The conservation and protection of open spaces, particularly the conservation of wildlife habitat, forestland, and wetlands. The property includes approximately 7,800 feet of undeveloped frontage along the Isinglass River. Portions of the Property were identified as a conservation priority in the Conservation Plan for New Hampshire's Coastal Watershed and it provides habitat for a wide variety of native wildlife including moose, deer, turkey, beaver, coyote, and migratory song birds;

C. The enhancement and enlargement of 153 acres of protected land that is near by the Property, said other land including the Town of Strafford's Ricky Nelson Road property (79 acres), the Cournoyer easement (55 acres), and the Foss Mill Dam Site (19 acres); and

D. The protection of land within a large 1,800-acre block of unfragmented lands, providing for species that require large contiguous forest ecosystems and forest interior habitat to survive.

The above Purposes are consistent with the clearly delineated open space conservation goals and/or objectives as stated in the 2002 Master Plan of the Town of Strafford, which includes among its goals the following:

- To protect the community's significant undeveloped land areas...utilizing tools for land protection...; and
- To protect the community's water resources...

and with New Hampshire RSA Chapter 79-A, which states:

It is hereby declared to be in the public interest to encourage the preservation of open space, thus providing a healthful and attractive outdoor environment for work and recreation of the state's citizens, maintaining the character of the state's landscape, and conserving the land, water, forest, agricultural and wildlife resources.

These purposes and the characteristics of the Property are also consistent with the conservation goals of the Grantee, including:

- The protection of conservation land within large contiguous blocks of unfragmented lands in southeastern New Hampshire;



- The protection of surface waters, groundwater and wetlands; and
- The protection of habitat for native plant and animal species.

These significant conservation values are set forth in detail in baseline documentation (hereinafter referred to as the “Baseline Report”) prepared by the Grantee and on file with the Grantee.

All of these Purposes are consistent and in accordance with the U.S. Internal Revenue Code, Section 170(h).

The Easement hereby granted with respect to the Property is as follows:

2. USE LIMITATIONS (Subject to the Reserved Rights specified in Section 3, below.)

A. The Property shall be maintained in perpetuity as open space without there being conducted thereon any residential development, industrial or commercial activities.

B. Management activities on the Property shall be subject to the following conditions:

- i. Identified within the Stewardship Plan described in Section 2.B.vi. below;
- ii. Carried out in accordance with all applicable local, state, federal, and other governmental laws and regulations;

iii. Management activities on the Property shall be performed in accordance with the following goals:

- Protection of water quality, wetlands and riparian areas;
- Maintenance or enhancement of wildlife habitat;
- Protection of unique or fragile natural areas;
- Conservation of native plant and animal species, and natural communities;
- Maintenance of soil productivity;
- Maintenance or enhancement of scenic quality;
- Control of invasive species;
- Restoration and management of the forest to reflect pre-settlement conditions; and
- Protection of unique historic or cultural features.

iv. Management activities on the Property shall be performed in accordance with a written management plan (“Stewardship Plan”) prepared by a forester licensed by the State of New Hampshire, certified wildlife biologist, or by another similarly qualified person, said person approved in advance and in writing by the Grantee. Said plan shall have been prepared not more than ten (10) years prior to the date that any management activity is expected to commence, or shall have been reviewed and updated at least thirty (30) days prior to said date.

v. At least thirty (30) days prior to the commencement of management activities, the Grantor shall submit a written certification to the Grantee, signed by a licensed professional

forester, certified wildlife biologist, or other qualified person, said other person to be approved in advance and in writing by the Grantee, that such plan has been prepared in compliance with the terms of this Easement. The Grantee may request the Grantor to submit the plan itself to the Grantee within ten (10) days of such request, but acknowledges that the plan's purpose is to guide management activities in compliance with this Easement, and that the actual activities on the Property will determine compliance therewith.

vi. The Stewardship Plan shall address:

- The short- and long-term protection of those Purposes and values for which this Easement is granted, as described in Section 1 above;
- A statement of landowner management objectives consistent with the Purposes of this easement;
- Property specific management goals and objectives;
- The goals in Section 2.B.iii. above;
- A boundary map with access roads and natural cover types;
- A description of the natural features of the Property, including land cover, topography, soils, geology, wetlands, streams, and ponds, and wildlife habitat features;
- Identification of plant and wildlife species and natural communities of conservation concern, and how management shall enhance, or avoid detrimental impacts to, said plants, wildlife, and natural communities;
- Recommended stewardship activities; and
- Recommended schedule for implementation of management practices, including a schedule for boundary, road, and trail maintenance.

vii. Management activities shall be supervised by a licensed professional forester, certified wildlife biologist, or other qualified person approved in advance and in writing by the Grantee.

viii. Management activities shall be carried out in accordance with all applicable local, state and federal laws and regulations, and in accordance with the then current, generally accepted best management practices for the sites, soils and terrain of the Property. (For references, see *Best Management Practices for Erosion Control on Timber Harvesting Operations in New Hampshire* (J.B. Cullen, 1996), *Good Forestry in the Granite State: Recommended Voluntary Forest Management Practices for New Hampshire* (New Hampshire Forest Sustainability and Standards Work Team, 1997) or similar successor publications.)

ix. Any cutting of trees or vegetation on the Property shall be practiced primarily to enhance or protect wildlife habitat, maintain the health of the forestland, or reasonably provide for limited educational or non-commercial recreational opportunities. In addition to satisfying one or several of those objectives, any cutting of trees or vegetation on the Property shall meet the following conditions:

- Such activities shall comply with the purposes of this easement;
- Such activities shall not damage or destroy rare species or exemplary natural communities;
- Such activities shall not degrade or otherwise impact water quality or aquatic habitats.

x. No resource management activities shall be undertaken with the specific purpose of income generation. However, it is understood that some resource management activities, as prescribed by a licensed forester, certified wildlife biologist, or other qualified person, may generate marketable forest products. Use or disposal of incidental by-products resulting from management activities shall be left to the Grantor's discretion. Also, any such resource management activities must be undertaken in accordance with industry "best practices" regarding the maintenance of forest health and are subject to the following conditions:

- Such activities shall comply with the purposes of this easement;
- Such activities shall not damage or destroy rare species or exemplary natural communities;
- Such activities shall not degrade or otherwise impact water quality or aquatic habitats.

xi. No management activity shall be undertaken in a manner that is detrimental to the Purposes of this Easement.

C. The Property shall not be subdivided and none of the individual tracts that together comprise the Property shall be conveyed separately from one another. The Grantor further covenants and agrees not to undertake any action that would have the effect of subdividing or conveying any part of the Property.

D. Subject to the right expressly reserved in Section 3.B, no structure or improvement, including, but not limited to, a dwelling (permanent, seasonal or temporary), any portion of a septic system, a road, dam, fence, bridge, culvert, shed, tennis court, swimming pool, dock, aircraft landing strip, telecommunications and/or wireless communications facility, tower, windmill, or mobile home, shall be constructed, placed or introduced onto the Property. However, ancillary structures and improvements may be constructed, placed or introduced onto the Property only as necessary in the accomplishment of the conservation, habitat management, educational, or non-commercial outdoor recreational uses of the Property, consistent with the Stewardship Plan required in Section 2.B.i., above, and provided that they are not detrimental to the Purposes of this Easement. No ancillary structure or improvement not detailed in the Stewardship Plan may be constructed, placed or introduced onto the Property without the prior review by and written approval of the Grantee.

E. No removal, filling or other disturbances of soil surface, nor any changes in topography, surface or subsurface water systems, wetlands, or natural habitat shall be allowed unless such activities:

i. Are commonly necessary in the accomplishment of the conservation, habitat management, educational, or non-commercial outdoor recreational uses of the Property consistent with the Stewardship Plan required in Section 2.B.i., above;

ii. Do not harm state or federally recognized rare, threatened or endangered species, such determination of harm to be based upon information from the New Hampshire Natural Heritage Bureau or the agency then recognized by the State of New Hampshire as having responsibility for identification and/or conservation of such species; and

- iii. Are not detrimental to the Purposes of this Easement.

Prior to commencement of any such activities, all necessary federal, state, local, and other governmental permits and approvals shall be secured.

F. No outdoor advertising structures such as signs and billboards shall be displayed on the Property except as desirable or necessary in the accomplishment of the conservation, educational, or non-commercial outdoor recreational uses of the Property or for funding acknowledgement, and provided such signs are not detrimental to the Purposes of this Easement.

G. There shall be no mining, quarrying, excavation, or removal of rocks, minerals, gravel, sand, topsoil, water, or other similar materials from the Property, except in connection with any improvements made pursuant to the provisions of Section 2.D., above.

H. There shall be no dumping, injection, burning, or burial of manmade materials or materials then known to be environmentally hazardous.

I. There shall be no posting to prohibit the public from accessing and using the Property, through the auspices of the Grantee, for traditional, daytime, non-motorized, noncommercial, non-intensive outdoor educational or recreational purposes. Notwithstanding the foregoing, the Grantor retains the right to make reasonable rules and regulations for such permitted uses in the event such uses prove to be detrimental to the Purposes of this Easement and to limit or prohibit any of the following: camping, loud activities, alcohol use, open fires, use of motorized vehicles, or any other use which is detrimental to the Purposes of this Easement. The Grantor and the Grantee may mutually agree in writing to restrict access to and use of all or part of the Property for other purposes, but only to the extent and for the duration necessary to assure safety, to permit necessary maintenance, or to preserve important scenic, ecological or other conservation values of the Property.

J. Except for those of record at the time this Easement is granted, and as otherwise allowed within this Easement, there shall be no rights-of-way, easements of ingress or egress, driveways or roads constructed, developed or maintained into, on, over, under, or across the Property without the prior written approval of the Grantee.

### 3. RESERVED RIGHTS

A. The Grantor shall have the right to use and manage the Property for any and all uses consistent with the Purposes and use limitations herein, including, but not limited to the right to clear, construct and maintain trails for walking, cross country skiing and other limited low impact, transitory, non-motorized, non-commercial educational or outdoor recreational activities within and across the Property, provided said trails are consistent with and not detrimental to the Purposes of this Easement, subject to the following conditions:

- i. The creation of new trails or the relocation of existing trails shall be provided for in the Stewardship Plan.

- ii. All trails shall conform to best practices recommended by the Appalachian Mountain Club or similar trail-maintaining organization. (For reference, see *The Complete Guide to Trail Building and Maintenance* (C. Demrow, D. Salisbury, Appalachian Mountain Club) or similar successor publication.)

B. Subject to written approval from the Grantee and NOAA, which shall not be unreasonably withheld, the Grantor reserves the right to make, construct, maintain, repair, replace and relocate, at the Grantor's sole expense, a single parking area within 300 feet of Range Road or New Bow Lake Road, with a surface area up to 5,000 square feet in size. The parking area shall consist of a permeable surface and shall be constructed with the minimum disturbance necessary in accordance with all applicable local, state, federal, and other governmental laws and regulations.

C. The Grantor reserves the right to have professionally conducted archaeological activities conducted on the Property, including without limitation, survey, excavation and artifact removal, following submission of an archaeological field investigation plan to, and its approval in writing by, the State Archaeologist of the New Hampshire Division of Historic Resources (or appropriate successor official), with written notice to the Grantee. Any such archaeological investigations shall be conducted by qualified individuals who meet the Secretary of Interior's Professional Qualification Standards for Archaeology, or subsequent standards. Any area disturbed by any such activities shall be restored to substantially its prior condition within nine (9) months after such activities cease.

D. These provisions are exceptions to Section 2 above.

E. The Grantor must notify the Grantee in writing at least thirty (30) days before any exercise of the aforesaid reserved rights included in Section 3.A., Section 3.B. and Section 3.C.

#### 4. NOTIFICATION OF TRANSFER, TAXES, MAINTENANCE

A. The Grantor agrees to notify the Grantee in writing no later than ten (10) days before the transfer of title to the Property or any division of ownership thereof permitted hereby.

B. The Grantee shall be under no obligation to maintain the Property or pay any taxes or assessments thereon.

#### 5. BENEFITS, BURDENS AND ACCESS

A. The burden of the Easement conveyed hereby shall run with the Property and shall be enforceable against all future owners and tenants in perpetuity; the benefits of this Easement shall not be appurtenant to any particular parcel of land but shall be in gross and assignable or transferable only to the State of New Hampshire, the U.S. Government, or any subdivision of either of them, consistent with Section 170(c)(1) of the U.S. Internal Revenue Code of 1986, as amended, or to any qualified organization within the meaning of Section 170(h)(3) of said Code, which organization has among its purposes the conservation and preservation of land and water areas and agrees to and is capable of enforcing the conservation purposes of this Easement. Any

such assignee or transferee shall have like power of assignment or transfer.

B. The Grantee shall have reasonable access to the Property and all of its parts to determine compliance with and to enforce this Easement and exercise the rights conveyed hereby and fulfill the responsibilities and carry out the duties assumed by the acceptance of this Easement.

C. The Grantee has the right to install and maintain small unlighted signs visible from public vantage points and along boundary lines for the purpose of identifying the Grantee and informing the public and abutting property owners that the Property is under the protection of this Easement.

D. The Grantee has the right to install and maintain a sign visible from a public vantage point for the purpose of identifying the Grantee, acknowledging funding, and to inform the public that the Property is under the protection of this Easement.

## 6. ALTERNATE DISPUTE RESOLUTION

A. The Grantor and the Grantee desire that issues arising from time to time concerning prospective uses or activities in light of the conservation purposes of this Easement will first be addressed through candid and open communication between the parties rather than unnecessarily formal or adversarial action. Therefore, the Grantor and the Grantee agree that if a party becomes concerned about the consistency of any proposed use or activity with the purposes of this Easement, wherever reasonably possible, the concerned party shall notify the other party of the perceived or potential problem, and explore the possibility of reaching an agreeable resolution.

B. If informal dialog does not resolve the issue, and the Grantor agrees not to proceed with the proposed use or activity pending resolution of the on-going dispute, either party may refer the dispute to mediation by request made in writing to the other. Within ten (10) days of the receipt of such a request, the parties shall agree on a single impartial mediator who shall be an attorney licensed to practice law in the State of New Hampshire or an experienced land use or land conservation professional, both of whom must have experience with conservation easements and training in mediation. Each party shall pay its own attorneys' fees, and the costs of mediation shall be split equally between the parties.

C. If the dispute has not been resolved by mediation within sixty (60) days after delivery of the mediation request, or the parties are unable to agree on a mediator within thirty (30) days after delivery of the mediation request, then, upon the Grantor's continued agreement not to proceed with the disputed use or activity pending resolution, either party may refer the dispute to binding arbitration by request made in writing and in accordance with New Hampshire RSA 542. Within thirty (30) days of receipt of such a request, the parties shall select a single impartial arbitrator to hear the matter. The arbitrator shall be an attorney licensed to practice law in the State of New Hampshire with experience in conservation easements and applicable training and experience as an arbitrator. Judgment upon the award rendered by the arbitrator may be enforced in any court of competent jurisdiction. The arbitrator shall be bound by and follow the substantive law of the State of New Hampshire and the applicable provisions of the US Internal

Revenue Code. The arbitrator shall render a decision within thirty (30) days of the arbitration hearing.

D. If the parties do not agree to resolve the dispute by arbitration, or if the parties are unable to agree on the selection of an arbitrator, then either party may bring an action at law or in equity in any court of competent jurisdiction to enforce the terms of this Easement, to enjoin the violation by permanent injunction, to require the restoration of the Property to its condition prior to the breach, and to recover such damages as appropriate.

E. Notwithstanding the availability of mediation and arbitration to address disputes concerning the consistency of any proposed use or activity with the purposes of this Easement, if the Grantee believes that some action or inaction of the Grantor or a third party is causing irreparable harm or damage to the Property, the Grantee may seek a temporary restraining order, preliminary injunction or other form of equitable relief from any New Hampshire court of competent jurisdiction to cause the cessation of any such damage or harm pending resolution of any dispute in accordance with this Section 6.

#### 7. BREACH OF EASEMENT – GRANTEE’S REMEDIES

A. If the Grantee determines that a breach of this Easement has occurred or is threatened, whether by a third party or the Grantor, the Grantee shall notify the Grantor in writing of such breach and demand corrective action to cure said breach, and, where the breach involves injury to the Property resulting from any use or activity inconsistent with the purposes of this Easement, to restore the portion of the Property so injured to its prior condition in accordance with a plan approved by the Grantee. Such notice shall be delivered in hand or by certified mail, return receipt requested.

B. If the Grantor fails, within thirty (30) days after receipt of such notice or after otherwise learning of such breach or conduct, to undertake those actions, including restoration, which are reasonably calculated to cure swiftly said breach and to repair any damage to the Property caused thereby, or fails to continue diligently to cure such breach until finally cured, the Grantee shall undertake any actions that are reasonably necessary to repair any damage in the Grantor’s name or to cure such breach, including an action at law or in equity in a court of competent jurisdiction to enforce the terms of this Easement, to enjoin the violation, *ex parte* as necessary, by temporary or permanent injunction, and to require the restoration of the Property to the condition that existed prior to any such injury.

C. The Grantee shall be entitled to recover damages for violation of the terms of this Easement or injury to any conservation values protected hereby, including, but not limited to, damages for the loss of scenic, aesthetic or environmental values. Without limiting the Grantor’s liability therefor, the Grantee, in its sole discretion, may apply any damages recovered to the cost of undertaking any corrective action on the Property.

D. If the Grantee, in its sole discretion, determines that circumstances require immediate action to prevent or mitigate significant damage to the conservation values of the Property, the Grantee may pursue its remedies under this Section 7 without prior notice to the Grantor or

without waiting for the period provided for cure to expire.

E. The Grantee's rights under this Section 7 apply equally in the event of either actual or threatened violations of the terms of this Easement. The Grantor agrees that the Grantee's remedies at law for any violation of the terms of this Easement are inadequate and that the Grantee shall be entitled to the injunctive relief described in Section 7.B, above, both prohibitive and mandatory, in addition to such other relief to which the Grantee may be entitled, including specific performance of the terms of this Easement, without the necessity of proving either actual damages or the inadequacy of otherwise available legal remedies. The Grantee's remedies described in this Section 7 shall be cumulative and shall be in addition to all remedies now or hereafter existing at law or in equity.

F. All reasonable costs incurred by the Grantee in enforcing the terms of this Easement against the Grantor, including, without limitation, costs and expenses of suit and reasonable attorneys' fees, and any costs of restoration necessitated by the Grantor's breach of this Easement, shall be borne by the Grantor, provided that the Grantor is directly or primarily responsible for the breach; and provided further, however, that if the Grantor ultimately prevails in a judicial enforcement action, each party shall bear its own costs.

G. Forbearance by the Grantee to exercise its rights under this Easement in the event of any breach of any term thereof by the Grantor shall not be deemed or construed to be a waiver by the Grantee of such term or of any subsequent breach of the same or any other term of this Easement or of any of the Grantee's rights hereunder. No delay or omission by the Grantee in exercise of any right or remedy upon any breach by the Grantor shall impair such right or remedy or be construed as a waiver. The Grantor hereby waives any defense of laches, estoppel or prescription.

H. Nothing contained in this Easement shall be construed to entitle the Grantee to bring any action against the Grantor for any injury to or change in the Property resulting from causes beyond the Grantor's control, including, but not limited to, unauthorized actions by third parties, natural disasters such as fire, flood, storm, disease, infestation, and earth movement, or from any prudent action taken by the Grantor under emergency conditions to prevent, abate or mitigate significant injury to the Property resulting from such causes.

I. The Grantee and the Grantor reserve the right, separately or collectively, to pursue all legal and/or equitable remedies, as set forth in this Section 7, against any third party responsible for any actions detrimental to the conservation purposes of this Easement.

## 8. DISCRETIONARY CONSENT

A. The Grantee's consent for activities otherwise prohibited herein may be given under the following conditions and circumstances. If, owing to unforeseen or changed circumstances, any of the activities listed in Section 2 are deemed desirable by the Grantor and the Grantee, the Grantee may, in its sole discretion, give permission for such activities, subject to the limitations herein. Such requests for permission shall be in writing and shall describe the proposed activity in sufficient detail to allow the Grantee to judge the consistency of the proposed activity with the



purposes of this Easement. The Grantee may give its permission only after notifying NOAA or its successor agencies and if it determines, in its sole discretion, that such activities (i) do not violate the Purposes of this Easement and (ii) either enhance or do not impair any significant conservation interests associated with the Property.

B. Notwithstanding the foregoing, the Grantor and the Grantee shall have no right or power to agree to any activities that would result in the termination of this Easement or to allow any residential, commercial or industrial structures, or any commercial or industrial activities, not provided for above.

#### 9. NOTICES

All notices, requests and other communications required to be given under this Easement shall be in writing, except as otherwise provided herein, and shall be delivered in hand or sent by certified mail, postage prepaid, return receipt requested to the appropriate address set forth above or at such other address as the Grantor or the Grantee may hereafter designate by notice given in accordance herewith. Notice shall be deemed to have been given when so delivered or so mailed.

#### 10. SEVERABILITY

If any provision of this Easement, or the application thereof to any person or circumstance, is found to be invalid by a court of competent jurisdiction, by confirmation of an arbitration award or otherwise, the remainder of the provisions of this Easement or the application of such provision to persons or circumstances other than those to which it is found to be invalid, as the case may be, shall not be affected thereby.

#### 11. SEPARATE PARCEL

The Grantor agrees that for the purpose of determining compliance with any present or future regulation (other than those governing N.H. Current Use Assessment under RSA 79-A), bylaw, order, or ordinance (within this Section referred to as "legal requirements") of the Town of Strafford, the State of New Hampshire or any other governmental unit, the Property shall be deemed a separate parcel of land and shall not be taken into account in determining whether any land of the Grantor, other than the Property, complies with any said legal requirements. The Property shall not be taken into account to satisfy in whole or in part any of said legal requirements or any area, density, setback, or other dimensional standard applicable to such land.

#### 12. CONDEMNATION

A. Whenever all or part of the Property is taken in exercise of eminent domain by public, corporate or other authority so as to abrogate in whole or in part the Easement conveyed hereby, or whenever all or a part of the Property is lawfully sold without the restrictions imposed hereunder in lieu of condemnation or exercise of eminent domain, the Grantor and the Grantee shall thereupon act jointly to recover the full damages resulting from such taking or lawful sale with all incidental or direct damages and expenses incurred by them thereby to be paid out of the

damages recovered.

B. The balance of the land damages recovered from such taking or lawful sale in lieu of condemnation or exercise of eminent domain shall be divided between the Grantor and the Grantee according to the value of their respective interests in that part of the Property condemned on the date of execution of this Easement. For this purpose, the Grantor and the Grantee agree that the Grantee's interest shall be \$0 (Zero dollars). Any increase in value attributable to improvements made after the date of the Conservation Easement shall accrue to the party who made the improvements.

C. The Grantor shall use its share of the proceeds to meet the Town of Strafford's obligations to reimburse NOAA or its successor agencies for the share of the value provided by the Federal Financial assistance award granted to the Town of Strafford under NOAA award #NA08NOS4190438 to purchase this property.

### 13. ADDITIONAL EASEMENT

Should the Grantor determine that the expressed purposes of this Easement could better be effectuated by the conveyance of an additional easement, the Grantor may execute an additional instrument to that effect after notifying NOAA or its successor agencies, provided that the conservation purposes of this Easement are not diminished thereby and that a public agency or qualified organization described in Section 5.A, above, accepts and records the additional easement.

The Grantee, by accepting and recording this Easement, agrees to be bound by and to observe and enforce the provisions hereof and assumes the rights and responsibilities herein granted to and incumbent upon the Grantee, all in the furtherance of the conservation purposes for which this Easement is delivered.

### 14. BASELINE DOCUMENTATION AND STEWARDSHIP RESPONSIBILITIES OF BEAR-PAW REGIONAL GREENWAYS

To facilitate the fulfillment of its responsibilities under this Easement, Bear-Paw Regional Greenways shall be responsible for the following (which shall include, but not be limited to):

- Producing the baseline information included in the Baseline Report;
- Maintaining baseline information and annual monitoring of the Property in accordance with applicable policies and guidelines, such as the Land Trust Standards and Practices of the Land Trust Alliance; and
- Providing an annual monitoring report to the Town of Strafford and NOAA or their successors indicating compliance with the terms of this Easement and/or actions necessary for compliance.

In the event Bear-Paw Regional Greenways is unable or unwilling to fulfill the stewardship responsibilities as described above, the stewardship responsibilities will become the responsibility of another qualified organization within the meaning of Section 107(h)(3) of the

U.S. Internal Revenue Code (1986, as amended), which organization has among its purposes the conservation and preservation of land and water areas, but only after notifying NOAA or its successor agencies.

IN WITNESS WHEREOF, we have hereunto set our hands this 1 day of AUGUST, 2008.

TOWN OF STRAFFORD

By: [Signature]

Title: R STEPHEN LEIGHTON SELECTMAN  
Duly Authorized

Date: 8/1/08

By: [Signature]

Title: Lynn M. Sweet Selectman  
Duly Authorized

Date: 8.1.08

By: [Signature]

Title: Stephanie M. Gray Selectman  
Duly Authorized

Date: 08/01/08

STATE OF NEW HAMPSHIRE  
COUNTY OF STRAFFORD, SS

On this 1 day of AUGUST, 2008, before me the undersigned officer, personally appeared R STEPHEN LEIGHTON, LYNN M. SWEET, + STEPHANIE M. GRAY who acknowledged themselves to be Selectmen of the Town of Strafford, and acting in said capacity, and being authorized so to do, executed the foregoing instrument on behalf of the Town of Strafford as its voluntary act and deed for the purposes therein contained.

Before me, [Signature]  
Justice of the Peace/Notary Public

My commission expires: 12-20-10

CAROLYN D. AUGER  
Notary Public - new hampshire  
My Commission Expires December 21, 2010

ACCEPTED: BEAR-PAW REGIONAL GREENWAYS

By: Harmony W. Anderson Harmony W. Anderson

Title: Director  
Duly Authorized

Date: August 1, 2008

By: Philip Auger Philip AUGER

Title: Director  
Duly Authorized

Date: 8/1/08

STATE OF NEW HAMPSHIRE  
COUNTY OF STAFFORD, SS

On this 1 day of August, 2008, before me the undersigned officer, personally appeared Harmony W. Anderson and Philip Auger who acknowledged themselves to be officers of Bear-Paw Regional Greenways, and acting in said capacity, and being authorized so to do, executed the foregoing instrument on behalf of Bear-Paw Regional Greenways as its voluntary act and deed for the purposes therein contained.

Before me, Carolyn D. Auger  
Justice of the Peace/Notary Public

My commission expires: 12-21-10

**CAROLYN D. AUGER**  
Notary Public - New Hampshire  
My Commission Expires December 21, 2010

## Appendix A

The "Property" subject to this Easement is a certain parcel of land consisting of approximately 286 acres, more or less, situated on the northeasterly side of Range Road and New Bow Lake Road in the Town of Strafford, County of Strafford, State of New Hampshire, as shown on a plan entitled "Tax Map 12 Lots 2 & 42, Property of Boulders at Strafford, LLC, Pig Lane, Range Road & New Bow Lake Road", recorded at the Strafford County Registry of Deeds as Plan Numbers 95-001 and 95-002 (the "Plan"), dated June 10, 2008, and more particularly bounded and described as follows:

BEGINNING AT AN IRON ROD IN THE EASTERLY SIDELINE OF PIG LANE AT LAND NOW OR FORMERLY OF RICHARD A. NELSON;

THENCE PROCEEDING ALONG SAID EASTERLY SIDELINE OF PIG LANE N 20°27'41" W A DISTANCE OF 34.66 FEET TO A POINT;

THENCE TURNING AND PROCEEDING ALONG SAID EASTERLY SIDELINE OF PIG LANE N 03°24'27" W A DISTANCE OF 88.80 FEET TO A POINT;

THENCE TURNING AND PROCEEDING ALONG A STONEWALL AND ALONG SAID EASTERLY SIDELINE OF PIG LANE N 14°16'51" W A DISTANCE OF 93.28 FEET TO A POINT;

THENCE TURNING AND PROCEEDING IN PART ALONG SAID STONE WALL AND ALONG SAID EASTERLY SIDELINE OF PIG LANE N 15°58'30" W A DISTANCE OF 116.33 FEET TO AN IRON ROD AT LAND NOW OR FORMERLY OF THE STATE OF NEW HAMPSHIRE WATER RESOURCES BOARD;

THENCE TURNING AND PROCEEDING ALONG LAND OF SAID STATE OF NEW HAMPSHIRE WATER RESOURCES BOARD ON THE FOLLOWING NINE COURSES:

N 77°12'12" E A DISTANCE OF 60.01 FEET TO AN IRON ROD;

N 11°04'21" E A DISTANCE OF 70.63 FEET TO AN IRON ROD;

N 29°14'59" E A DISTANCE OF 48.58 FEET TO AN IRON ROD;

N 31°50'25" E A DISTANCE OF 29.33 FEET TO AN IRON ROD;

S 43°42'18" E A DISTANCE OF 33.16 FEET TO AN IRON ROD;

N 73°48'25" E A DISTANCE OF 61.84 FEET TO AN IRON ROD;

N 52°42'45" E A DISTANCE OF 105.19 FEET TO A DRILL HOLE;

N 32°19'18" E A DISTANCE OF 18.60 FEET TO A DRILL HOLE;

N 57°40'42" W A DISTANCE OF 33.00 FEET THRU AN IRON ROD TO A POINT IN THE THREAD OF ISINGLASS RIVER;

THENCE TURNING AND PROCEEDING ALONG SAID ISINGLASS RIVER AND LAND OF SAID STATE OF NEW HAMPSHIRE WATER RESOURCES BOARD IN A NORTHEASTERLY DIRECTION 892 FEET MORE OR LESS THE FOLLOWING EIGHT TIE COURSES:

N 32°19'18" E A DISTANCE OF 15.07 FEET;

N 44°13'12" E A DISTANCE OF 60.41 FEET;

N 54°28'34" E A DISTANCE OF 82.65 FEET;

N 77°34'07" E A DISTANCE OF 143.47 FEET;

N 67°49'58" E A DISTANCE OF 162.32 FEET;

N 52°44'38" E A DISTANCE OF 238.09 FEET;

N 36°51'10" E A DISTANCE OF 98.75 FEET;

N 14°34'15" E A DISTANCE OF 91.61 FEET TO A POINT AT LAND NOW OR FORMERLY OF ROBERT P. CHABOT;

THENCE PROCEEDING IN A NORTHEASTERLY DIRECTION ALONG SAID ISINGLASS RIVER AND LAND OF SAID ROBERT P. CHABOT AND LAND NOW OR FORMERLY OF JAMES F. STILES REVOCABLE TRUST 844 FEET MORE OR LESS THE FOLLOWING EIGHT TIE COURSES:

N 42°45'50" E A DISTANCE OF 40.34 FEET;  
N 69°08'35" E A DISTANCE OF 98.28 FEET;  
N 54°46'48" E A DISTANCE OF 124.59 FEET;  
N 16°57'08" E A DISTANCE OF 96.15 FEET;  
N 62°00'48" E A DISTANCE OF 58.13 FEET;  
N 72°36'55" E A DISTANCE OF 174.13 FEET;  
N 39°54'39" E A DISTANCE OF 201.64 FEET;  
N 09°53'53" E A DISTANCE OF 50.82 FEET TO A POINT AT LAND NOW OR FORMERLY OF LELAND STILES ESTATE;

THENCE TURNING AND PROCEEDING THE FOLLOWING SIX COURSES ALONG LAND OF SAID LELAND STILES ESTATE:

N 45°29'05" E A DISTANCE OF 135.41 FEET;  
N 83°29'05" E A DISTANCE OF 363.00 FEET;  
N 61°29'05" E A DISTANCE OF 173.25 FEET;  
N 09°29'05" E A DISTANCE OF 66.00 FEET;  
N 85°30'55" W A DISTANCE OF 115.50 FEET;  
N 28°30'55" W A DISTANCE OF 77.25 FEET TO THE BANK OF SAID ISINGLASS RIVER;

THENCE TURNING AND PROCEEDING NORTHEASTERLY ALONG SAID BANK OF THE ISINGLASS RIVER 591 FEET MORE OR LESS THE FOLLOWING FOUR TIE COURSES:

N 66°37'00" E A DISTANCE OF 93.84 FEET;  
N 00°32'18" W A DISTANCE OF 176.36 FEET;  
N 48°49'34" E A DISTANCE OF 109.86 FEET;  
S 88°07'41" E A DISTANCE OF 199.18 FEET;

THENCE TURNING AND PROCEEDING TO THE THREAD OF SAID ISINGLASS RIVER N 53°00'55" W A DISTANCE OF 39.86 FEET TO A POINT;

THENCE TURNING AND PROCEEDING NORTHEASTERLY AND SOUTHEASTERLY ALONG SAID THREAD OF THE ISINGLASS RIVER 4,103 FEET MORE OR LESS THE FOLLOWING THIRTY SEVEN TIE COURSES:

S 77°30'44" E A DISTANCE OF 39.52 FEET;  
N 52°26'47" E A DISTANCE OF 34.16 FEET;  
N 40°08'27" E A DISTANCE OF 56.21 FEET;  
N 26°42'41" E A DISTANCE OF 91.04 FEET;  
N 54°19'08" E A DISTANCE OF 111.33 FEET;  
N 70°17'17" E A DISTANCE OF 138.78 FEET;  
N 49°15'48" E A DISTANCE OF 99.17 FEET;  
N 43°35'59" E A DISTANCE OF 127.39 FEET;  
N 84°19'42" E A DISTANCE OF 55.32 FEET;  
S 54°28'16" E A DISTANCE OF 132.75 FEET;

N 32°30'28" E A DISTANCE OF 137.66 FEET;  
N 89°31'21" E A DISTANCE OF 103.12 FEET;  
N 38°10'44" E A DISTANCE OF 71.64 FEET;  
N 34°26'30" E A DISTANCE OF 46.26 FEET;  
N 04°53'32" E A DISTANCE OF 79.17 FEET;  
N 30°02'42" E A DISTANCE OF 53.61 FEET;  
N 55°05'32" E A DISTANCE OF 67.01 FEET;  
S 40°52'49" E A DISTANCE OF 163.17 FEET;  
S 59°25'31" E A DISTANCE OF 68.90 FEET;  
S 34°45'10" E A DISTANCE OF 206.71 FEET;  
S 12°26'02" E A DISTANCE OF 59.82 FEET;  
S 07°06'08" W A DISTANCE OF 60.68 FEET;  
S 25°11'59" W A DISTANCE OF 80.98 FEET;  
S 16°36'51" W A DISTANCE OF 224.55 FEET;  
S 35°55'35" E A DISTANCE OF 122.57 FEET;  
S 55°54'20" E A DISTANCE OF 79.86 FEET;  
S 10°50'18" E A DISTANCE OF 81.24 FEET;  
S 24°43'10" E A DISTANCE OF 61.91 FEET;  
S 09°57'07" E A DISTANCE OF 234.08 FEET;  
S 34°59'38" E A DISTANCE OF 80.58 FEET;  
S 42°54'01" E A DISTANCE OF 172.23 FEET;  
S 68°56'59" E A DISTANCE OF 256.54 FEET;  
S 52°38'46" E A DISTANCE OF 89.72 FEET;  
S 31°41'47" E A DISTANCE OF 312.59 FEET;  
S 36°47'31" E A DISTANCE OF 76.87 FEET;  
S 02°00'55" E A DISTANCE OF 39.29 FEET;  
S 37°09'54" E A DISTANCE OF 186.12 FEET TO A POINT AT LAND NOW  
OR FORMERLY OF MARY LOU LAMBERT REVOCABLE TRUST;

THENCE TURNING AND PROCEEDING ALONG LAND OF SAID MARY LOU  
LAMBERT REVOCABLE TRUST S 33°48'53" W A DISTANCE OF 24.00 FEET TO A  
POINT IN THE BANK OF THE ISINGLASS RIVER;

THENCE TURNING AND PROCEEDING ALONG LAND OF SAID MARY LOU  
LAMBERT REVOCABLE TRUST S 33°48'53" W A DISTANCE OF 1,483.45 FEET TO A  
POINT AT THE END OF A STONEWALL;

THENCE TURNING AND PROCEEDING ALONG SAID STONEWALL AND LAND  
OF SAID MARY LOU LAMBERT REVOCABLE TRUST S 33°55'41" W A DISTANCE OF  
233.33 FEET TO A POINT;

THENCE TURNING AND PROCEEDING ALONG LAND OF SAID MARY LOU  
LAMBERT REVOCABLE TRUST THE FOLLOWING FOUR COURSES:

S 28°16'28" W A DISTANCE OF 202.83 FEET;  
S 37°50'08" W A DISTANCE OF 245.15 FEET TO A TACK IN A 8" OAK  
WITH WIRE;  
S 29°04'49" W A DISTANCE OF 77.57 FEET TO A TACK IN A 12" OAK  
WITH WIRE;  
S 39°05'38" W A DISTANCE OF 150.18 FEET TO A TACK IN A 12"  
HEMLOCK WITH WIRE;

THENCE TURNING AND PROCEEDING ALONG LAND OF SAID MARY LOU LAMBERT REVOCABLE TRUST AND LAND NOW OR FORMERLY OF PHILIP C. SHIERE THE FOLLOWING SIX COURSES:

S 25°06'39" W A DISTANCE OF 44.42 FEET TO A TACK IN A 12" OAK WITH WIRE;  
S 29°34'38" W A DISTANCE OF 309.75 FEET TO A TACK IN A 6" TRIPLE BIRCH WITH WIRE;  
S 33°24'23" W A DISTANCE OF 200.10 FEET;  
THENCE TURNING AND PROCEEDING S 33°24'23" W A DISTANCE OF 236.21 FEET TO A TACK IN A 3" DEAD HARDWOOD WITH WIRE;  
S 27°19'58" W A DISTANCE OF 200.93 FEET TO A POINT;  
S 36°29'16" W A DISTANCE OF 332.40 FEET TO A POINT IN A CORNER OF STONEWALLS AT LAND NOW OR FORMERLY OF PETER J. HELLFACH;

THENCE TURNING AND PROCEEDING ALONG SAID STONEWALL AND LAND OF SAID PETER J. HELLFACH THE FOLLOWING FIVE COURSES:

N 52°20'53" W A DISTANCE OF 268.55 FEET;  
N 54°02'43" W A DISTANCE OF 152.08 FEET;  
N 63°16'43" W A DISTANCE OF 32.66 FEET;  
S 31°53'22" W A DISTANCE OF 21.32 FEET;  
N 53°15'53" W A DISTANCE OF 114.05 FEET TO A POINT;

THENCE TURNING AND PROCEEDING ALONG SAID STONEWALL AND LAND OF SAID PETER J. HELLFACH AND LAND NOW OR FORMERLY OF PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE THE FOLLOWING FIVE COURSES:

N 56°23'09" W A DISTANCE OF 38.27 FEET;  
N 45°59'18" W A DISTANCE OF 36.50 FEET;  
N 54°06'16" W A DISTANCE OF 59.61 FEET;  
N 33°34'30" W A DISTANCE OF 22.91 FEET;  
N 46°02'08" W A DISTANCE OF 23.09 FEET TO A POINT IN THE END OF SAID STONE WALL;

THENCE PROCEEDING ALONG LAND OF SAID PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE N 59°34'19" W A DISTANCE OF 31.68 FEET TO A POINT AT THE END OF A STONEWALL;

THENCE TURNING AND PROCEEDING ALONG SAID STONEWALL, LAND OF SAID PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE AND LAND NOW OR FORMERLY OF PETER J. HELLFACH THE FOLLOWING TWENTY THREE COURSES:

N 67°52'28" W A DISTANCE OF 60.49 FEET;  
N 66°03'15" W A DISTANCE OF 25.67 FEET;  
N 85°08'52" W A DISTANCE OF 25.49 FEET;  
N 66°36'00" W A DISTANCE OF 20.21 FEET;  
N 53°37'15" W A DISTANCE OF 23.89 FEET;  
N 19°32'15" W A DISTANCE OF 7.96 FEET;  
N 85°34'31" W A DISTANCE OF 36.57 FEET;  
N 72°18'00" W A DISTANCE OF 74.13 FEET;  
N 79°50'49" W A DISTANCE OF 17.46 FEET;  
N 70°39'50" W A DISTANCE OF 128.77 FEET;



N 30°26'29" E A DISTANCE OF 39.87 FEET;  
N 61°00'03" W A DISTANCE OF 122.32 FEET;  
S 34°26'25" W A DISTANCE OF 40.89 FEET;  
N 52°56'05" W A DISTANCE OF 90.19 FEET;  
N 54°27'46" W A DISTANCE OF 77.70 FEET;  
N 67°12'46" W A DISTANCE OF 39.49 FEET;  
N 42°11'43" W A DISTANCE OF 35.54 FEET;  
N 36°33'34" W A DISTANCE OF 40.68 FEET;  
N 55°29'26" W A DISTANCE OF 39.47 FEET;  
S 15°10'13" W A DISTANCE OF 191.81 FEET TO A DRILL HOLE;  
S 14°37'24" W A DISTANCE OF 126.01 FEET;  
S 30°46'47" W A DISTANCE OF 139.60 FEET TO A DRILL HOLE;  
S 58°21'03" W A DISTANCE OF 137.80 FEET TO A SPIKE IN THE  
NORTHERLY SIDELINE OF NEW BOW LAKE ROAD;

THENCE TURNING AND PROCEEDING ALONG SAID NEW BOW LAKE ROAD  
N 70°38'50" W A DISTANCE OF 430.05 FEET TO A POINT;

THENCE TURNING AND PROCEEDING ALONG SAID NEW BOW LAKE ROAD  
N 53°31'33" W A DISTANCE OF 12.33 FEET TO AN IRON ROD AT LAND NOW OR  
FORMERLY OF MATTHEW S. & DONNA C. LAPANNE;

THENCE PROCEEDING ALONG LAND OF SAID MATTHEW S. & DONNA C.  
LAPANNE ON THE FOLLOWING SEVEN COURSES:

ON A CURVE TO THE LEFT HAVING A RADIUS OF 25.00 FEET, AN ARC  
LENGTH OF 27.85 FEET TO AN IRON ROD;

N 62°39'29" E A DISTANCE OF 130.51 FEET TO AN IRON ROD;

ALONG A CURVE TO THE LEFT HAVING A RADIUS OF 275.00 FEET, AN  
ARC LENGTH OF 141.56 FEET TO AN IRON ROD;

N 33°09'50" E A DISTANCE OF 135.66 FEET TO A POINT;

N 33°09'50" E A DISTANCE OF 17.58 FEET TO A POINT;

THENCE PROCEEDING ALONG A CURVE TO THE RIGHT HAVING A  
RADIUS OF 255.00 FEET, AN ARC LENGTH OF 26.60 FEET TO AN IRON ROD;

THENCE TURNING AND PROCEEDING N 53°24'07" W A DISTANCE OF  
320.47 FEET TO AN IRON ROD AT LAND NOW OR FORMERLY OF JOHN R. &  
DIANE M. BENNETTE;

THENCE TURNING AND PROCEEDING ALONG LAND OF SAID JOHN R. &  
DIANE M. BENNETTE N 33°00'21" E A DISTANCE OF 230.97 FEET TO A DRILL HOLE  
IN A STONEWALL;

THENCE TURNING AND PROCEEDING ALONG SAID STONEWALL AND LAND  
OF SAID JOHN R. & DIANE M. BENNETTE THE FOLLOWING FIVE COURSES:

N 53°04'12" W A DISTANCE OF 6.75 FEET;

N 50°10'15" W A DISTANCE OF 54.99 FEET;

N 43°37'17" W A DISTANCE OF 56.23 FEET;

N 82°14'00" W A DISTANCE OF 71.94 FEET;

N 71°53'23" W A DISTANCE OF 19.66 FEET TO A DRILL HOLE AT LAND  
NOW OR FORMERLY OF RICHARD NELSON;

THENCE TURNING AND PROCEEDING ALONG A STONEWALL AND LAND OF  
SAID RICHARD NELSON N 29°55'21" E A DISTANCE OF 114.11 FEET TO A POINT;

THENCE TURNING AND PROCEEDING ALONG LAND OF SAID RICHARD NELSON N 42°35'48" E A DISTANCE OF 348.91 FEET TO AN IRON ROD;  
THENCE TURNING AND PROCEEDING ALONG LAND OF SAID RICHARD NELSON N 04°41'39" E A DISTANCE OF 435.62 FEET TO A POINT;  
THENCE TURNING AND PROCEEDING ALONG LAND OF SAID RICHARD NELSON N 75°11'42" W A DISTANCE OF 780.95 FEET TO THE POINT OF BEGINNING.

CONTAINING: 12,460,206 SQUARE FEET (286 ACRES), MORE OR LESS.

MEANING AND INTENDING to describe the premises conveyed by the Warranty Deed of Boulders at Strafford, LLC, to the Town of Strafford, dated JULY 30<sup>TH</sup>, 2008, and recorded in the Strafford County Registry of Deeds at Book 3667 and Page 375.