

**The Little Big Forest
Ecological Reserve & Education Center
Forest Management Plan
Highland Lake, Stoddard, N.H.
*DRAFT***



May 15, 2022

**"Great Stewardship by Great Example"
Stoddard Conservation Commission**

**Plan Prepared by: Geoffrey T. Jones, Chair, NH LPF #151
PO Box 336, Stoddard, NH 03464
geoffreytjones@gmail.com
603-446-3439 (h)**

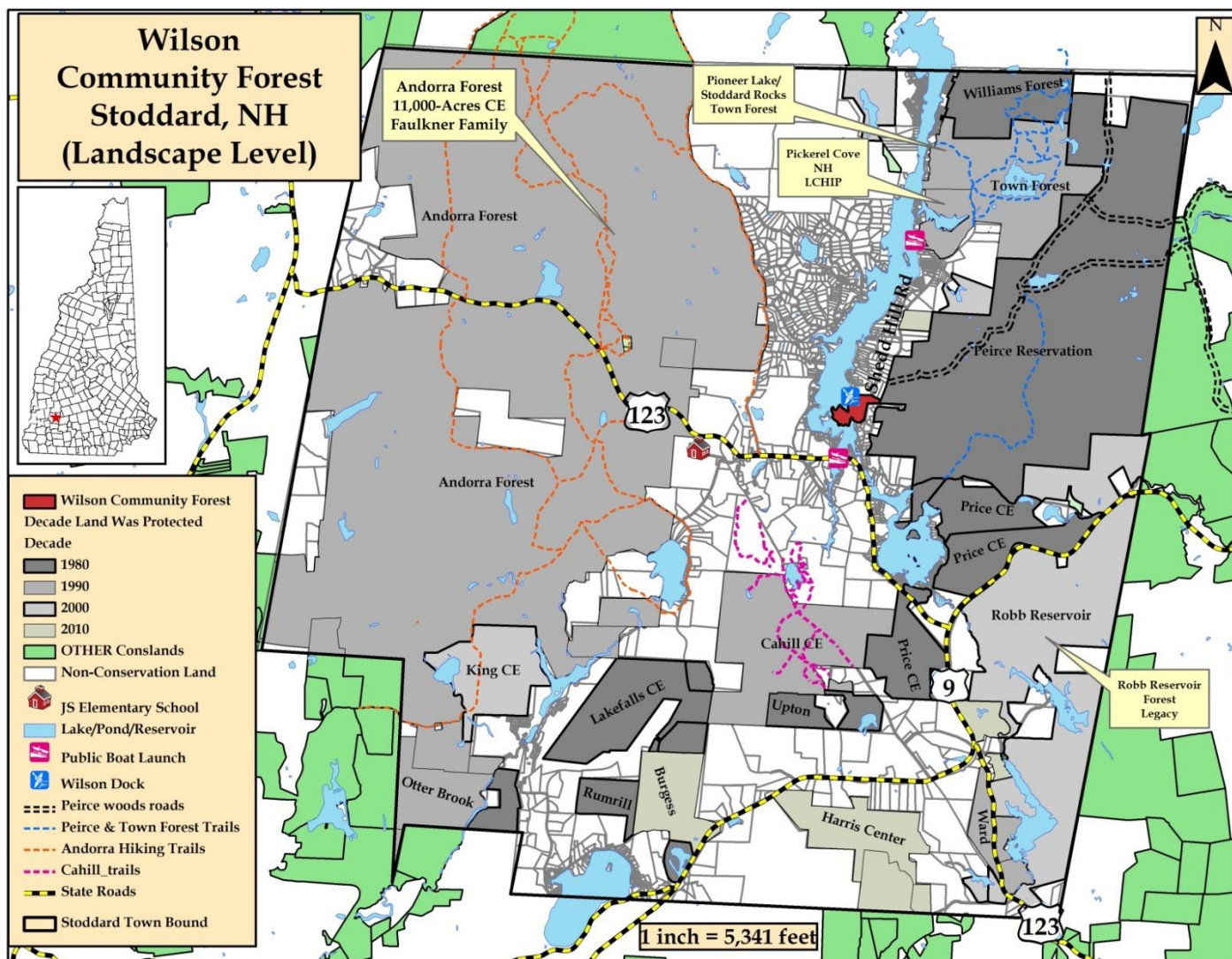
Contents

Introduction	5
The Threat.....	7
Objectives of Ownership	7
Name for the Community Forest.....	8
Landscape Level Highlights of Wilson Lands Community Forest (WCF)	9
History of Stewardship in Stoddard.....	10
Who owns the Conservation Land of Stoddard?	13
Description of the Property	14
Location and Access.....	14
The WCF consists of three abutting lots:	16
Cultural Features	16
Boundary Lines.....	17
Soils.....	17
Forest Profile	18
Map 125 Lot 20 12.5 Acres:.....	18
Map 121 Lot 1 11.9 Acres:.....	19
Map 125 Lot 21:.....	23
Forest Inventory.....	26
Cruising Program:	27
Field Procedure:.....	27
Computer Digital Data:	29
Summary of Inventory Data and Analysis.....	29
Timber Management.....	32
Secrets of Old(er) Growth Forests.....	36
Water Quality	38
Wildlife.....	40
Snags and Den Trees	41
Song Bird Habitat	41

Community Benefits to the Town	41
Wilson Point Shoreline Benefits	41
Shoreline Facts	41
Benefits to Highland Lake (As A Model to Address Other Lakes In NH Under Siege)	44
Benefits Relative to Storms & Runoff	45
Stewardship Benefits.....	47
Recreational Benefits.....	48
What Do Residents Say About the Conservation Lands? Notable Quotes	54
Educational Benefits & Opportunities	55
Landscape Level Features	56
Unfragmented Forests	56
Conservation Lands	58
Invasive Plants and Insects.....	59
Insects of concern for Stoddard:.....	60
Climate and the Role of The Forest (It's Resiliency)	60
Mechanism for Promoting & Public Participation	62
Steering Committee:.....	62
Grant Writing Committee:	63
Fundraising Committee:.....	63
Public Outreach Committee:.....	66
Stewardship Committee:.....	66
Groups Offering Letters of Support (see addendum):.....	66
Plans for Utilization of the Building	66
Implementation Strategies	69
Planned Public Access	69
Long-Term Use and Management of Property	70
Stewardship Budget.....	70
Timeline	70

Recommended Stewardship Activities	70
Bibliography	70
NHNHB Data Check for Threatened & Endangered Species	71
Appendix	72
Glossary	72
Letters of Community Support	82

DRAFT



Introduction

Highland Lake is a 5+ mile long, narrow lake that extends north/south between the hills that form parts of three watersheds. The Wilson Land lies on the southeastern flank of the lake, cradled in a landscape that contains thousands of acres of protect lands.

This landscape level feature map (above) shows the juxtaposition of the Wilson Land relative to the conservation lands. The landscape is rich with hiking, boating, and natural resource field trip opportunities. According to a study conducted in the northeast part of town in the 1990's, Stoddard has one of the most intact ecosystems south of the White Mountains.

Stoddard is a small hilltop town perched on the high, rocky divide between the Connecticut and Merrimack River valleys. It was the last town in Cheshire County to be incorporated.....and it took a hardy people to do that.

While its population is relatively small, geographically Stoddard is the second largest town in Cheshire County. As towns and cities across NH became established and grew, the people shaped the land. But in Stoddard, where half the hills and half the rocks of Cheshire County can be found, the land shapes the people! Over the past 40 years private landowners working with land trusts have protected 65% of the land in town¹: these conservation lands help to define who we are.

In 2020, when COVID~19 came to town, it brought a tsunami of new growth; people with summer homes began converting and upgrading them for year round use. The few remaining undeveloped lots along Shedd Hill, the shores of Highland Lake and elsewhere in town, began hosting new residents. Fibercast high-speed internet became the great enabler!



When development outpaces the town's ability to properly regulate it, developers and landowners push the envelope of the regulatory bounds as in the picture above: a clear and blatant violation of shoreline regulations on Highland Lake (summer of 2021).

One area that has miraculously escaped growth and development, for decades, is NOW on the market: three lots totaling 40+ acres with over 4,000 feet of pristine frontage along the southern end of Highland Lake near the narrows.

On July 8, 2021, Stoddard conservation commission chair Geoff Jones met with the owner Steven Wilson and his realtor to discuss his land. He said he bought the land to provide a place to teach his kids how to camp and fish and to discover the secrets and joys of the natural world. Regretfully, his personal circumstances had changed and he can no longer hang onto the land. Jones seized the moment to express the towns' strong desire to acquire the land so that the children of Stoddard will always have a place, where they too, can learn to camp and fish.

Mr. Wilson offered the town the gift of time to achieve a conservation outcome.

¹ See History of Stewardship starting on page 3 of this plan

There are pivotal points in a town's history where an event helps to galvanize a community towards a higher purpose. The community effort to protect "Wilson Point" provides the common ground and "purpose" that citizens from all walks of life can come together on. Furthermore, it builds upon a long history of land stewardship!

In addition to forming a closer connection and understanding between people and the land, this property holds the promise for establishing "common ground" on other issues in town, that until now have proven to be elusive.

The Threat

The properties are currently listed by The Masiello Group of Keene, NH as "3 contiguous lots (that) total over 41 acres and offer multiple possible house sites. A June 27, 2019 Appraisal prepared for Mr. Wilson developed a "conceptual design of a lake front subdivision" that "analyzed 26 house lots with 150 feet of lake-front per one-acre lot!" While this proposal does not take into consideration the towns zoning regulations for development of private roads, in all due respect, both the planning board and ZBA do not have a good track record AND developers with deep pockets often get their way. This is a real threat that the town should be fully aware of and take very seriously (benefits and consequences outlined below).

The conservation commission has been pursuing a written Option Agreement with the landowner. As of this writing (April 4, 2022) we are crafting an OA with attorney Thomas Masland that will include the important Option Terms:

- Selling price of \$1.3 million
- Date: from signing to end on December 31, 2022 with the following conditions:
 - \$25,000 deposit (non-refundable, but applicable to the purchase price);
 - Proof that 75% of necessary funds have been raised by December 31, 2022
- Date Extension: from January 1, 2023 to June 30, 2023 with the following conditions:
 - A second \$25,000 payment (non-refundable, but applicable to the purchase price);
 - Close on June 30, 2023
 - No further extension of the option

Raising private funds will be an important part of the fundraising!

Objectives of Ownership

- **Protect the ecological integrity** of this unmanaged/uncut forest by allowing the older growth and mature ecosystem conditions to continue to naturally evolve without human intervention or disturbance;
- **Maintaining the existing diverse wildlife habitat** that includes diverse forest types; a variety of forest species; dead and down coarse woody debris; cavity trees of varying sizes; softwood cover; hardwood mast; and 4,000 feet of important natural shoreline;

- **Develop the existing rustic cabin into an outdoor learning center** for the James Faulkner Elementary School's robust outdoor education curriculum; develop adult educational programs to help visitors and members of the community enjoy and understand the conservation lands of Stoddard and to unify the community around shared values and interests in the process;
- **Protect 40-acres of forest and 4,000+ feet of shoreline frontage** that collectively act as a filter for runoff, enhancing the quality of Highland Lake's water body. In so doing, the forest is protected from a potential multi-housing development (over 20 units proposed) and the soil erosion, sedimentation, and leaching of nutrients that accompany such activity; prevent the creation of lawns and the use of harmful chemicals (herbicides, fertilizers, insecticides) and habitat fragmentation and loss;
- **Provide recreational use** that is well planned and sited in appropriate places and meet the needs of residents and visitors when appropriate for the land conditions and are maintained and monitored.
- Use the onsite **examples** of how ecologically mature forests like WCF help **to mitigate the insidious impacts of climate change by sequestering carbon** above and below the ground;
- **Conduct a baseline forest and ecological inventory**; continually update and expand this dynamic plan as conditions and opportunities warrant;
- A refinement and/or revisions to the objects will occur once a series of Community listening and feedback session are held in the Spring/Summer of 2022.

Name for the Community Forest

The conservation commission is in search of a name for this forest. A couple of names that have been suggested are:

- Eagle Perch Point (Craig Walker)
- Tall Pine Shoals (Bob Fee)

Every time I mention the project to friends and colleagues, they always ask: "how many acres is it"?

"I say that it's 40 acres".

They say: "is that all"??

Then I say "it's got big trees, and 4,000 feet of undeveloped shoreline, and we have big dreams/BIG ideas for its use....."

How about: **"The Little Big Forest"**

A forest for the children of Stoddard: Imagine telling kids that they are going to spend the day in an enchanted forest named "The Little Big Forest" (like the movie "The Little Big Man"a play on words like the video to protect Pickerel Cove: **"A Short Story About a Long Pond"**

Landscape Level Highlights of Wilson Lands Community Forest (WCF)

- **Sixty-five percent** of the town is in conservation land (22,040 acres); approximately one-third of the protected lands (6,500+ acres) are in a “forever wild” designation;
- In looking at the mosaic of protected lands in Stoddard, shoreline protection is the one habitat type that is severely under represented; adding these 40-acres will protect a unique and extraordinary “ecological treasure”;
- Wilson land has **4,000 feet of undeveloped shoreline**, which is approximately 4% of the lake: combined with Pickerel Cove’s shoreline of 1+ mile: **10% of the total shoreline could be protected.** This is important, because Highland Lake has 700-1,000+ camps/house lots averaging <150 feet of frontage, all with some sort of septic system, well water withdrawal, and lawns laced with varying levels of fertilizers, herbicides, and pesticides. Collectively these camps and the activity associated with them are taking its toll on the health of the lake;
- Wilson Lands and Pickerel Cove represent an **“Ecological Life-line”** that links the ecosystem services of thousands of acres of protected lands to the ecosystem of Highland Lake; these services supply the biodiversity that is so important for ecological health and resiliency of lakes and forests (surviving and/or rebounding from stresses caused by climate change and other human induced stressors);
- **According to forest ecologist Tom Wessels, these lands most likely have always been forested; the soils never plowed or pastured:** (portions of one lot were fenced and perhaps were farmed as unimproved pastureland for sheep). The network of mycorrhizal fungi and other soil microorganisms should be healthy and intact; this is vitally important, because they are critical to maintaining the ecological health of forest and lake ecosystems, by preventing nutrients from being leached into surface waters and are a **major (global) carbon sink**;
- Highland lake is home to nesting loons, a variety of ducks and Canada geese and is frequented by great blue herons and osprey; bald eagles perch in the super canopy white pines on the peninsula with increasing frequency, someday they may nest;
- Forests on the “peninsula” are believed to have been uncut for at least the past 100-150+ years. Large white pines, in excess of 3-ft in diameter and 110-feet tall AND straight, are scattered throughout the overstory of the peninsula. One very large red maple is estimated to be 200 to 250 years old!!! As they age and senesce, broken tops would make excellent bald eagle nesting habitat; studies on large diameter snags reveal that over 20,000 species are involved with the cradle to grave existence of these trees!!
- Wilson Point Forest would be the first property in Stoddard where the terrain would lend itself to an ADA trail system that would enable people with special needs to experience a 100-200 year old forest that is usually found in remote areas difficult to access. The forest is right under our nose, a short distance from Mill Village where the fire station, Village store, and Post office are located.
- A well-built rustic cabin could readily be transformed into a community center for outdoor education and field trips to talk about a variety of natural resource issues, expanding James Faulkner Elementary School (JFES) existing nature based curriculum in stimulating new ways.

This project has all of the potential excitement and energy that the public efforts to protect Pickerel Cove, Robb Reservoir, and the Stoddard Rocks/Pioneer Lake had: it is a tremendous

unspoiled area close to Mill Village, AND it will build upon the legacy of previous community land protection efforts.

History of Stewardship in Stoddard

Stoddard has a storied history of stewardship dating back to Christopher Robb, a business man who in 1853 opened the gates to a new sawmill in South Stoddard. To supply his mill with wood, Robb acquired thousands of acres of forestland around Island Pond and Highland Lake to feed his growing saw mill business.

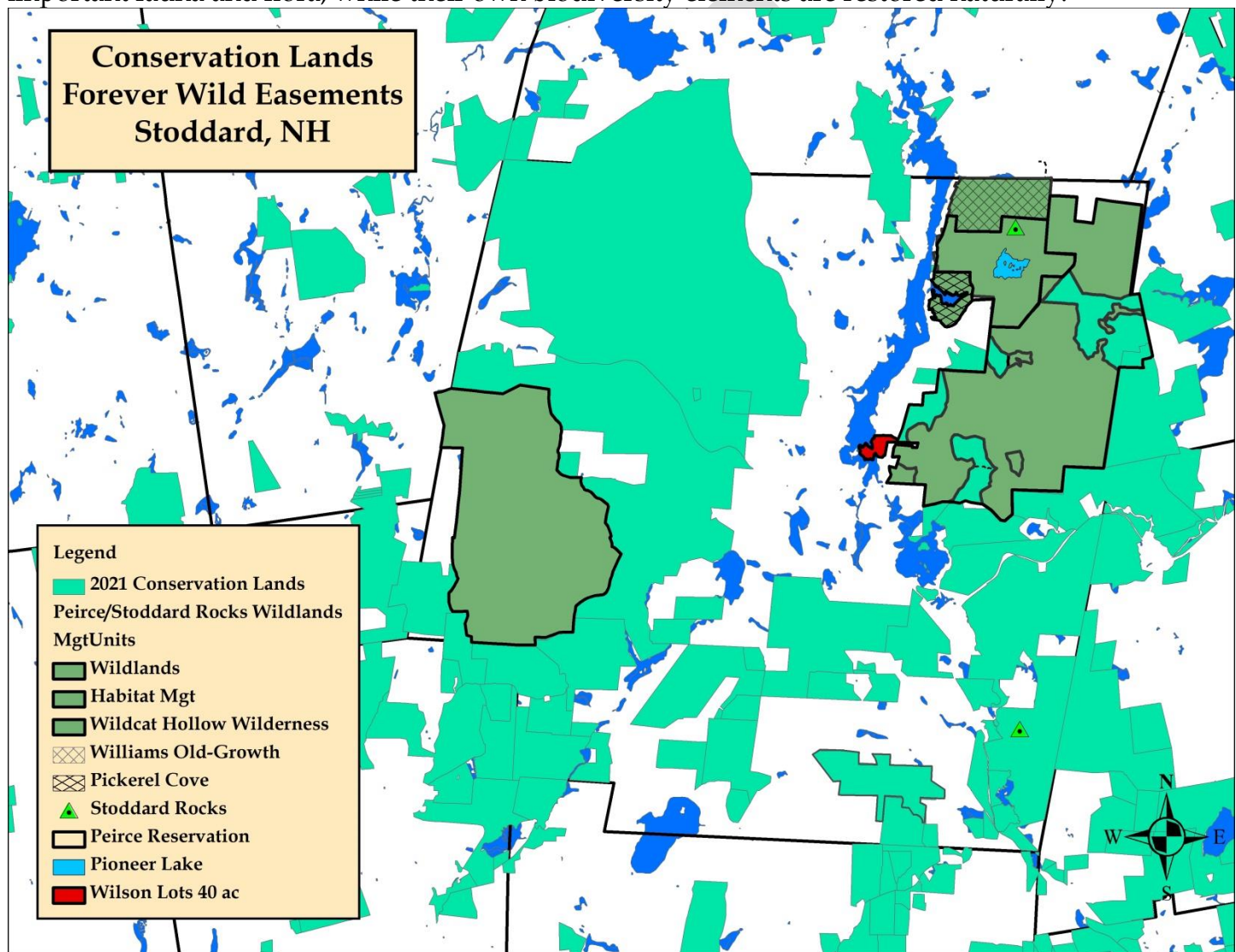
Around 1871, he built a dam that now forms Highland Lake, so he could float logs to his mill in the summer and haul them with oxen over the ice in winter.



Unlike other lumbermen of his day, Robb was a firm believer that forests should be tended as carefully as a vineyard or an orchard; he believed in good utilization with little waste.

Robb's sense of stewardship was carried forward, when Betty Babcock established the first large tract of conservation land in town when she donated 3,400 acres of land on the east flank of Highland Lake to the Society for the Protection of N. H. Forests in 1978 (in honor of Charles L. Peirce, a local resident and historian).

Over the past 40 years, other private landowners followed Babcock's lead, resulting in 65% of the town being permanently protected through their voluntary generosity and the efforts of several land trusts, including: the Society for the Protection of NH Forests, Sweet Water Trust, The Nature Conservancy, the Audubon Society of NH, The Harris Center, and the Trust for Public Land. Of the 60+ parcels of land protected, only two involved the use of public funds (LCHIP funds for 125-acre Pickerel Cove; Forest Legacy Funds for 1,666-acre Robb Reservoir). It is interesting to note: of the 22,000+ acres of conservation land, over 6,000 acres are protected with "*Forever Wild*" easements. As these protected forests are allowed to age over time, they will help restore important habitat elements that may have been temporarily lost or don't exist in surrounding areas that are under continuous forest management or other activities. They also help to re-colonize these disturbed areas with important fauna and flora, while their own biodiversity elements are restored naturally.



In 1963, the NH General Court passed RSA 36-A:2 that enabled towns to establish a conservation commission for the proper utilization and protection of the natural resources and for the protection of watershed resources of said city or town. Stoddard established its conservation commission (SCC) in

1963. Some of the important stewardship activities and accomplishments that the commission has been involved in include the following:

- In 1990-91-Stoddard residents rallied against an ill-proposed development project slated to place 125 high end condominiums in Pickerel Cove. They defeated the proposal, then partnered with SPNHF to raise the \$95,000 purchase price;
- In 1999 successfully advocated the use of a wooden (v. concrete) bridge to replace the aging Mill Village bridge;
- From 1999-2008 helped lead the regional effort to reduce the size of a proposed \$66 million dollar upgrade of Keene's bypass, by successfully promoting a less damaging practical alternative: Roundabouts. Stoddard recruited letters of support from 10 other conservation commissions from towns in Cheshire County;
- In 2006 Helped lead the local effort to protect 1,600+ acres around Robb Reservoir. Persuaded residents to appropriate \$50,000 towards a \$3 million dollar statewide initiative, resulting in a unanimous vote of support from the town;
- In 2011 Led opposition against a poorly sited cell tower proposal on a remote hill surrounded by conservation land in southwestern Stoddard. The SCC identified an alternative site that hosted the tower;
- In 2012 initiated the effort to convince Sweet Water Trust to donate 730-acres of land including Stoddard Rocks and Pioneer Lake to the town. This effort resulted in a unanimous vote by the town to accept the property, as well as a match of \$10,000 towards a stewardship fund;
- In 2012 Were intervenors in a proposed wind farm in NW Antrim that would impact adjacent conservation lands that contained the NH F & G Dept.'s highest wildlife habitat ranking; the projected was defeated on aesthetic grounds (the first time the NH Site Evaluation Committee ever denied a permit);
- In 2013 Established a trailhead parking lot and trail to new town forest surrounding Pioneer Lake and Stoddard Rocks;
- In 2014 Developed a formal relationship with the Stoddard James Faulkner Elementary School; led a day long hike to the forest with the 60 students K-5th grade; additional outings and presentations have been made;
- In 2016 Took the early lead to defeat an ill-proposed bobcat season and garnered the support of 30 other town conservation commissions; the bill was soundly defeated due to unprecedented public outcry;
- In 2016 Were Intervenor in a 2nd attempt to establish a wind farm in NW Antrim; this time the project was approved by a 5:1 vote by the Site Evaluation Committee and upheld by the NH Supreme Court in February 2018;
- In 1999-2018 hosted dozens of presentations on conservation topics in conjunction with Olde Home Days attended by over 1,000 citizens. These annual forums have topics that underscore the importance of all the conservation lands in town, cultivating and awareness and pride;
- In 2012-forward: proven track record of stewardship taking care of 732-acre town forest maintaining trails; earthen dam; kiosk; leading field trips for JFES students; Antioch students; and general public in conjunction with Olde Home Days; protecting the property from unwanted vehicular encroachment, etc.

Who owns the Conservation Land of Stoddard?

The Society for the Protection of New Hampshire Forests has had the largest and earliest hand at protecting land in Stoddard, beginning with the gift of 3,400 acres of land from Betty Babcock, in honor of long-time resident and local historian Charles Lyman Peirce. They own seven separate forests that total 4,230 acres and hold another 13,109 acres under conservation easement on seven other tracts, including 10,400 acres on Andorra Forest, the heart of the Monadnock Highlands. Here is a summary of parcels of protected land; who owns them; the decade they were protected and their respective acreages:

Who Owns The Conservation Lands of Stoddard?		
<u>Decade</u>	<u>NAME</u>	<u>Acreage</u>
1990	Andorra Forest-Faulkner family CE	10,372.0
1980	Peirce Reservation-SPNHF	3,381.0
2000	Robb Reservoir-Harris Center	1,666.0
1980-90	Cahill-CE (4 tracts)	920.0
1980	Price CE (9 tracts)	828.0
1990	Town Forest-Stoddard (conveyed to town in 2012)	717.0
1980	Lakefalls Associates-CE	467.0
2000	King-CE	406.0
1980	Williams Forest-SPNHF	357.0
2010	Wilson Tavern-Harris Center	337.0
2010	Burgess-CE	286.0
2000	Loverens Mills-TNC	282.0
1990	Otter Brook-TNC	272.0
1990	Ward-CE (4)	178.0
2000	Wild Lake-CE	138.0
2010	Luneau-CE	138.0
1990	Pickerel Cove-SPNHF	125.0
1980	Rumrill Forest-SPNHF	118.0
1980	Daniel Upton-SPNHF	169.0
2010	Chandler-CE (2 tracts)	91.0
2000	Whitney/Sherman-CE	75.0
1980-2021	Miscellaneous-CE (22 tracts)	717.0
		22,040.0

Description of the Property

Location and Access

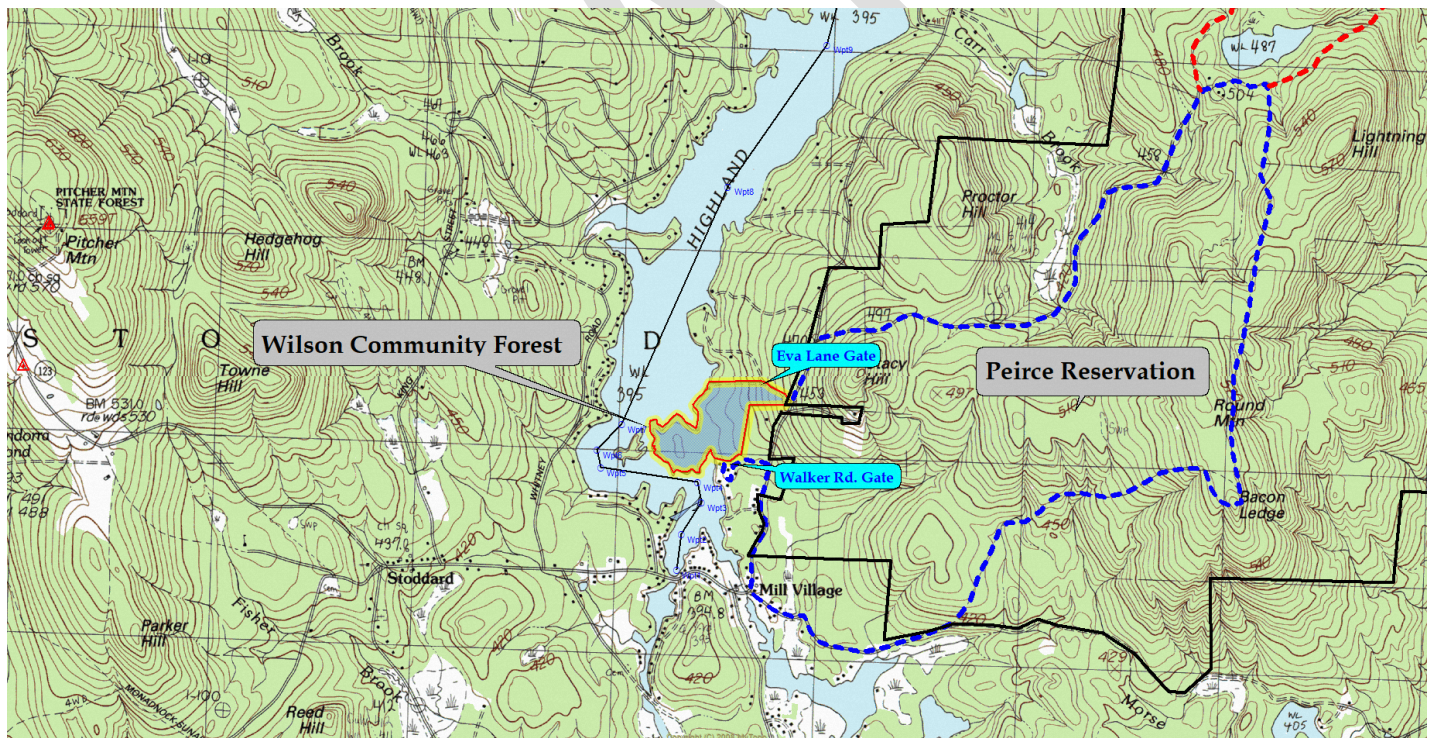
From the intersection of Rte. 123 and Shedd Hill Rd. in Mill Village, Stoddard, turn right at the fire station onto Shedd Hill Rd. Travel approximately .7 miles to the top of Shedd Hill Rd. Turn left onto Eva Lane, descend approximately .1 mile to the gated entrance to Phyllis Lane.

GPS Coordinates:

Latitude: 043° 05' 12.6559"N

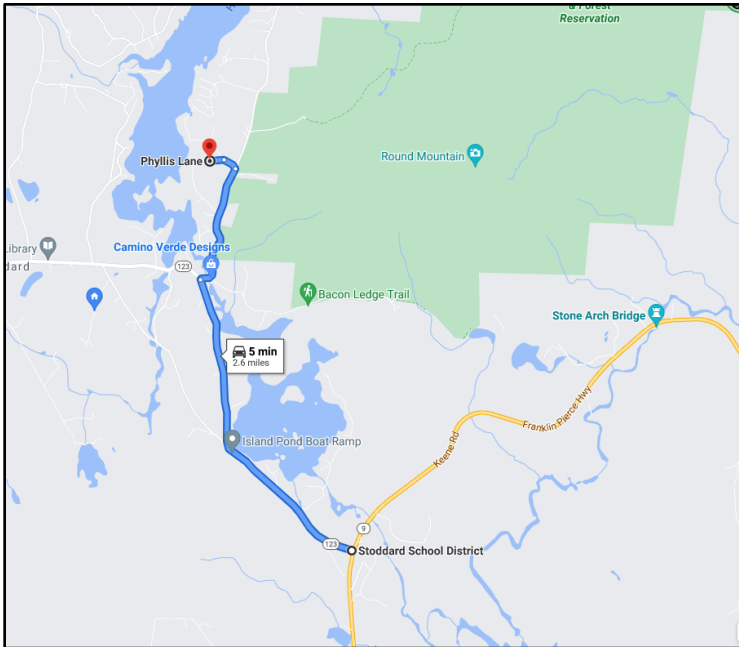
Longitude: 072° 05' 30.5544"W

WCF is located at the narrows of the southern end of Highland Lake on the eastern flank. Highland Lake is an artificially impounded body of water. The land is located along the toe of the slope to Stacy Hill. Several thousand acres of conservation land lie directly across the street from Shedd Hill, including the Peirce Reservation: the largest tract of land in the Society for the Protection of New Hampshire Forests 120-year history. The steepest part of the property is the eastern end of Lot M121 L1, the other two lots have a fairly flat, but undulating terrain.

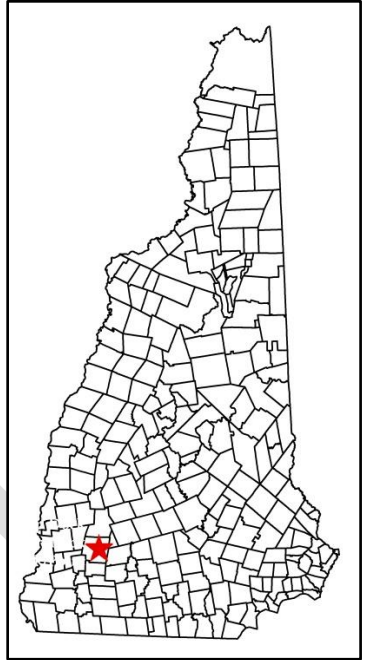


The main entry for public access will be at the junction of Eva Lane and Phyllis Lane, where a gated access road to the property exists. A 3-5 car parking lot would be constructed where visitors would park their cars and hike into the property. Visitors wishing to gain access to the lake with canoes or kayaks can do so by portaging the short distance to a dock near the cabin. The access road to the

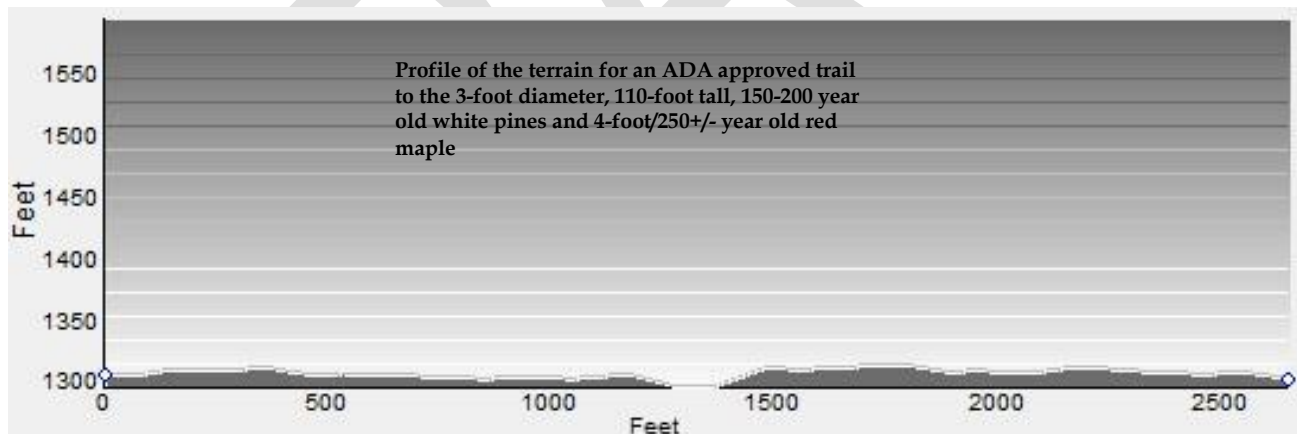
cabin is a well-constructed road that needs brushing out and minor maintenance. A parking lot for buses or group vans could be constructed near the bottom of the hill near the cabin. This would allow ADA visitors easy access to a planned trail system that would accommodate their needs.



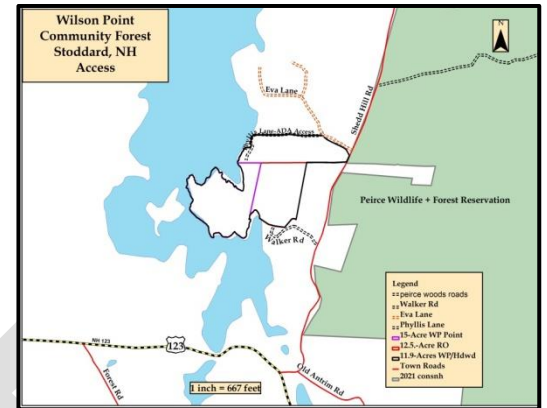
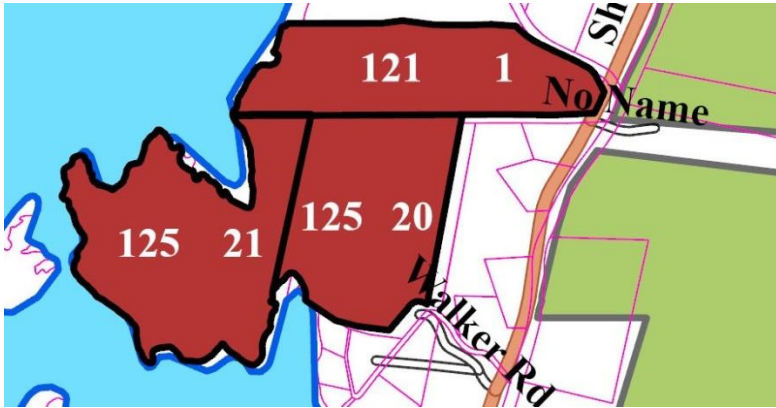
From the Jct. of Rte. 9 and Rte. 123 west, travel west 1.8 miles to Mill Village; turn right onto Shedd Hill Rd. (by the Fire Station) continue north 0.7 miles around a twisting road that heads up a steep hill. Near the top of the hill turn left onto Eva Lane 400 feet to the gate of Phyllis Lane on the left.
WCF is located in the NE part of Cheshire County.



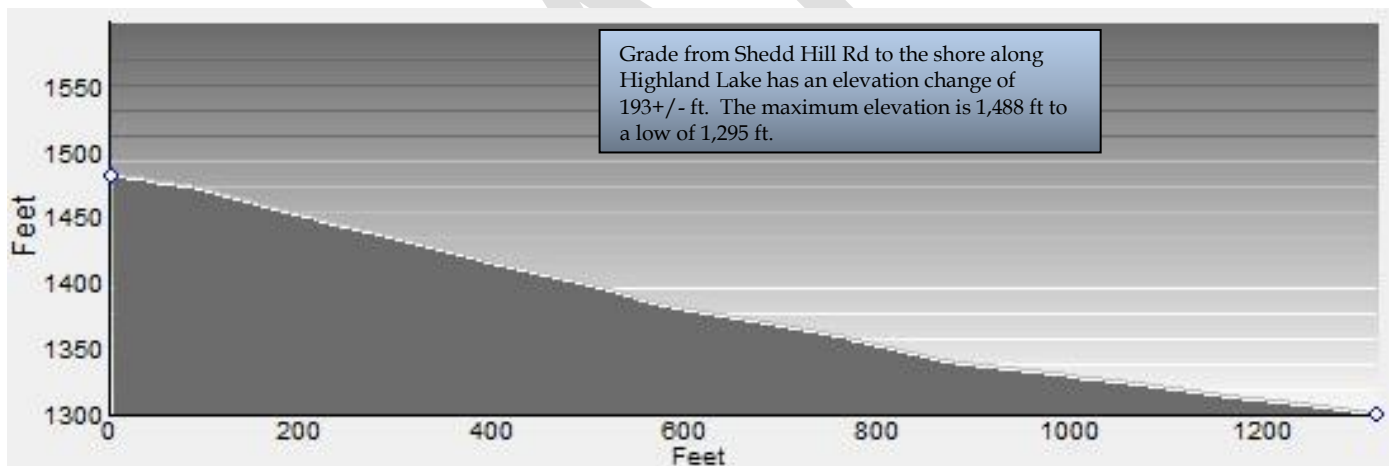
The following map shows the gentle nature of the terrain:



The WCF consists of three abutting lots:



Lot M121-L1, northerly 11.9-acre lot, has approximately 100+ feet of frontage along Shedd Hill and joins Eva Lane with common frontage for 500+/- feet along the southwest side. The deed prohibits building along Shedd Hill and Eva Lane. As the lot extends westward from Shedd Hill, the terrain has a 15%-50%+ grade with a fair amount of surface rocks and boulders that would make internal access a challenge. As the property approaches the lake and levels off, soils become hydric, further complicating access.



Lot M125-L20 is the southeasterly 12.5 acre lot. It is not clear from the deed if parcel has frontage along Walker Rd. or not, however there is a gated access road located at a sharp bend in Walker Rd. Whether this is part of the property or not is unclear from the deed.

Lot M125-L21 is the most westerly and largest lot at 15.8 acres. It appears to be landlocked with no granted access. Physical access to the lake is compounded by terrain constraints of hydric soils, surface rocks and to restrictions of the NH DES Shoreland protection.

Cultural Features

Stonewalls and stone piles indicate that portions of this property were farmed long ago. The deed also makes mention of barb wire fencing. There is no recent or obvious evidence of any timber

harvesting. There is lack of evidence of skid trails, stumps, unlopped tops, log landings, or other equipment activity (test pits, etc.). There appears to be two little used trails: one enters Lot M125-L20 and skirts along the eastern bound north to south, continuing onto Lot M121 L1. No attempt was made to follow it.

A second trail seems to originate from the Walker's property and meanders in a westerly direction across Lots M125-L20 and L21, continuing to the raised point on the northwesterly peninsula that has a grand view of Mt. Lovewell, 8+ miles to the north, in Washington, NH.

The land appears to have been left idle and little used for the past 70+ years, with the exception of a small, rustic cabin in the NW corner of Lot 1 (see section on buildings for more information).

A well-built rustic cabin lies on the northwest corner of the 3 lots, with waterfront access. A well-built woods road follows the northern bound east/west and connects to Eva Lane (more on the cabin later).

Boundary Lines

The perimeter bounds of the three lots are identified, for the most part, with stonewalls lake shore frontage, road frontage and old flagging.

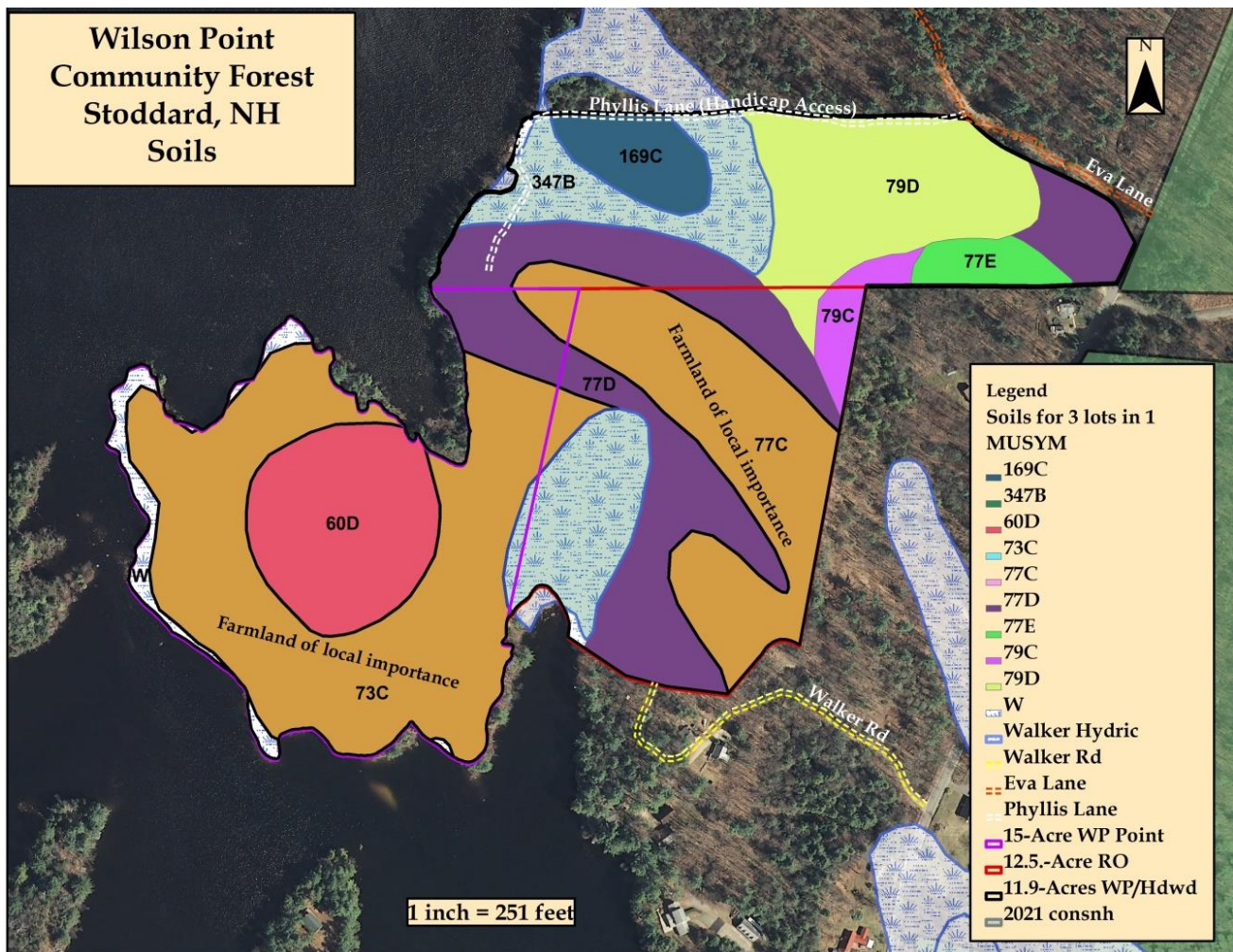
No attempt was made to look for corner pins or additional boundary evidence at this time. The accuracy of the GPS shapefiles taken from the tax map was accurate enough to navigate with a fair degree of certainty.

With some additional field work, the boundary references mentioned in the deed should be located without too much difficulty.

A property survey of the bounds is scheduled for the spring of 2022 with licensed surveyor Stephen S. Perron, LLS #843 of 54 Portsmouth St., Concord, NH. All corners will be identified by field markers (set iron pipes preferred)

Soils

A majority of the soils are comprised of Berkshire and Marlow Fine Sandy Loam that are well drained, yet have a high potential for erosion. Sixteen acres are farmland of local importance. Approximately 40% of the acreage has slopes that range from 25 to 50%, a majority of which is in the eastern end of Lot M121~L1. A narrow band of hydric soils lies east of the Lot M125 L20 and drains across the NE corner into a wetland seep that continues onto Lot M125 L20 into more hydric soils to the north on Lot M121 L1.



In short: Ninety-five percent of the acreage has a combination of steep slopes, highly erodible/hydric soils, that if commercially logged and/or developed to its maximum allowable potential could have adverse impacts to sedimentation and nutrient enrichment to Highland Lake.

Another band of hydric soil lies along the SW border of Lot M125 L21. This area has noticeable amounts of windthrow in the hydric soils. The grayish color of the soil indicates depletions associated with hydric soils, confirming the soils map data.

Forest Profile

The WCF consists of three main forest types that are peculiar to each lot

Map 125 Lot 20 12.5 Acres:

Forest Type dominated by exemplary red oak, mixed hardwoods and scattered super canopy white pine. The overstory of this lot is populated by large white pine and red oak scattered in the overstory. The red oak ranges in diameter from 14" to 20 inches at breast height and is 1.5 to two logs in merchantable height (24-32 feet). Evidence of past agricultural use lies in scattered piles of stones.

Scattered old stumps can be found along the eastern side. However there is a lack of recent harvesting.



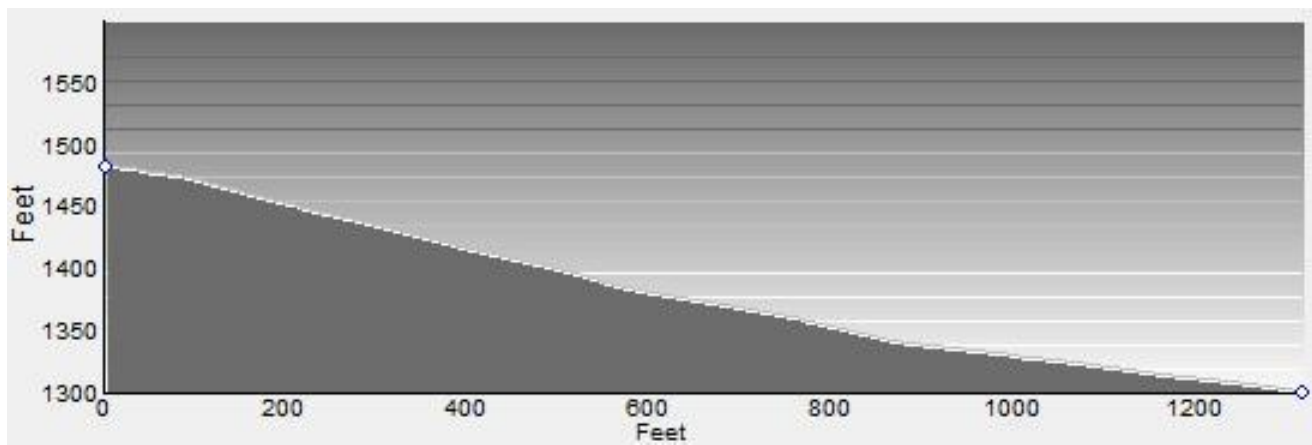
White ash, yellow and white birch, beech, red oak, red spruce, hemlock and big toothed aspen can be found on the western side of the lot, representing good diversity of tree species and quality.

The stand has scattered surface rocks, acorn mast and deer scat. This property has excellent wildlife habitat: red oak in the overstory provides hard mast, along with scattered beech; hemlocks, in both the overstory and midstory provide year round cover, along with the white pines in the overstory. An understory and midstory provide vertical diversity, which creates diverse habitat for songbirds.

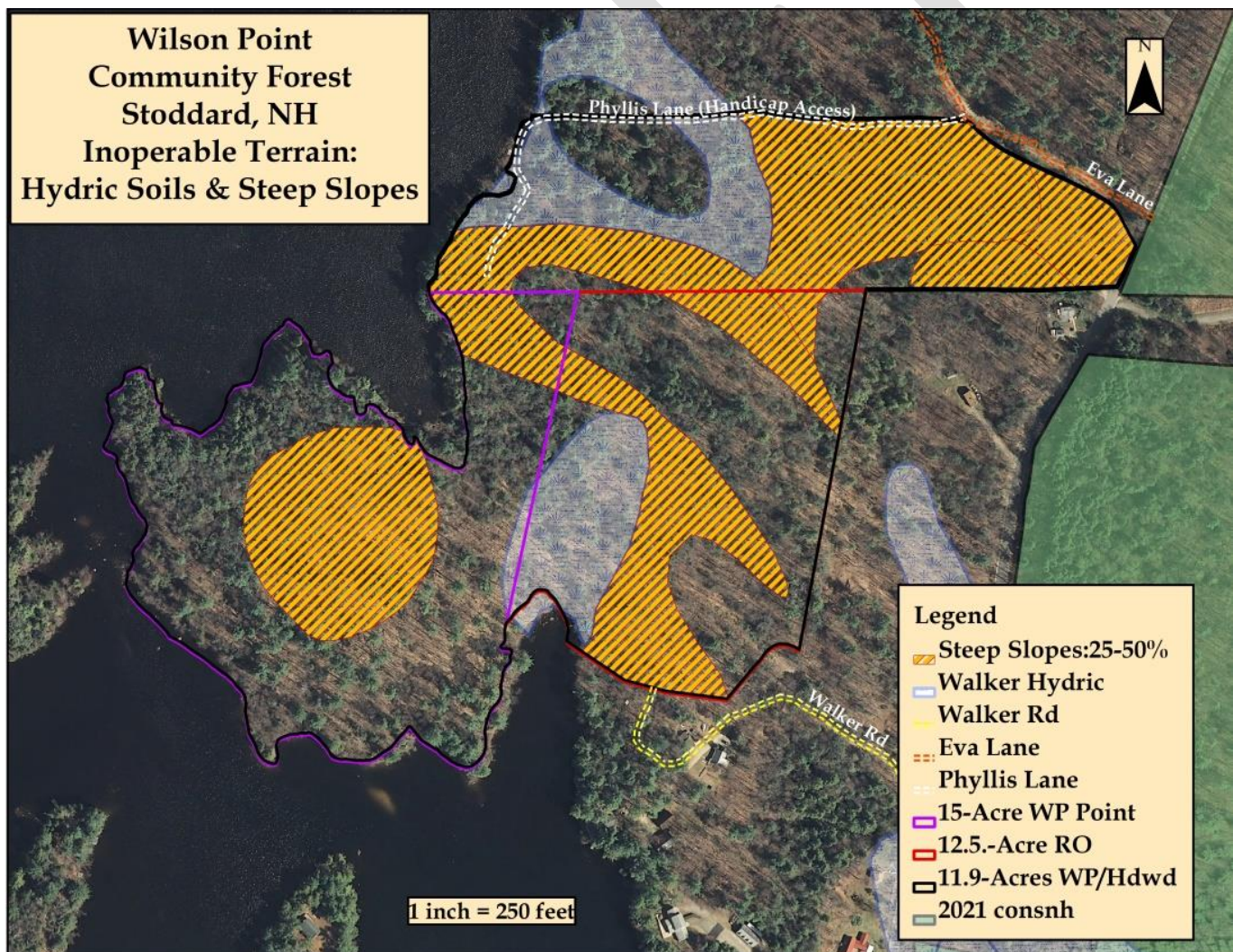
Map 121 Lot 1 11.9 Acres:

Forest Type dominated by tall white pine in the overstory; co-dominates of hemlock and mixed hardwoods in the understory

This lot offers the greatest vertical relief and slopes of the three properties, with a slope that ranges from 15 to 50%.



There is a dense understory throughout most of the lot, with a high percentage of downed coarse woody debris (valuable structural habitat for a variety of species.....even though visually it is rough for lay people to appreciate). The northern lot has the greatest percentage of steep slopes (25-50%) according to USGS soils maps.





A vein of large “super canopy” white pine runs along the lower western side extending along the northern bound, rising upward to the east. (The pictures and on the next page, do NOT do justice).



Red spruce, hemlock and beech saplings and poles occupy the midstory. Given the hydric soils on the lower western side and the rising slopes with scattered rocks on the eastern end, it causes one to wonder if these lots have been left undeveloped because of topographical constraints or because of the owner's objectives (probably the latter).

Regardless, even limited access along Shedd Hill Rd and 500 feet of frontage along Eva Lane, this lot appears to be the least developable of the three

Map 125 Lot 21:

Forested dominated by super canopy 30"-36"+ white pine (100+ feet tall; 150+ years old) over a canopy of red oak, mixed hardwoods with hemlock (especially in pockets in the understory).

This is the most attractive and desirable lot of the three. The magnificent stand of "super canopy" white pines (2-3 feet thick and 100 feet tall) with overstory red oak, line the shoreline perimeter, approximately 150 to 200 feet wide. Large pine and oak can also be found scattered throughout the peninsula, all of which is stunning and striking.

Interspersed and beneath the pine and oak are beech (some very free of beech scale) white birch, red maple, yellow birch, hemlock, and an occasional black cherry. The understory is fairly open in much of this lot.

The undeveloped shoreline has downed trees and limbs of varying sizes and ages provide important shoreline habitat for insects, amphibians, reptiles and birds. This is the way 80% of the lake shore looked like in the 1950's when Jones was growing up.



These lots provide an invaluable corridor to protected lands to the east; access to the lake; and as a crossing point across the narrows to the woods and conservations lands of Andorra Forest. Every attempt should be made to protect them!

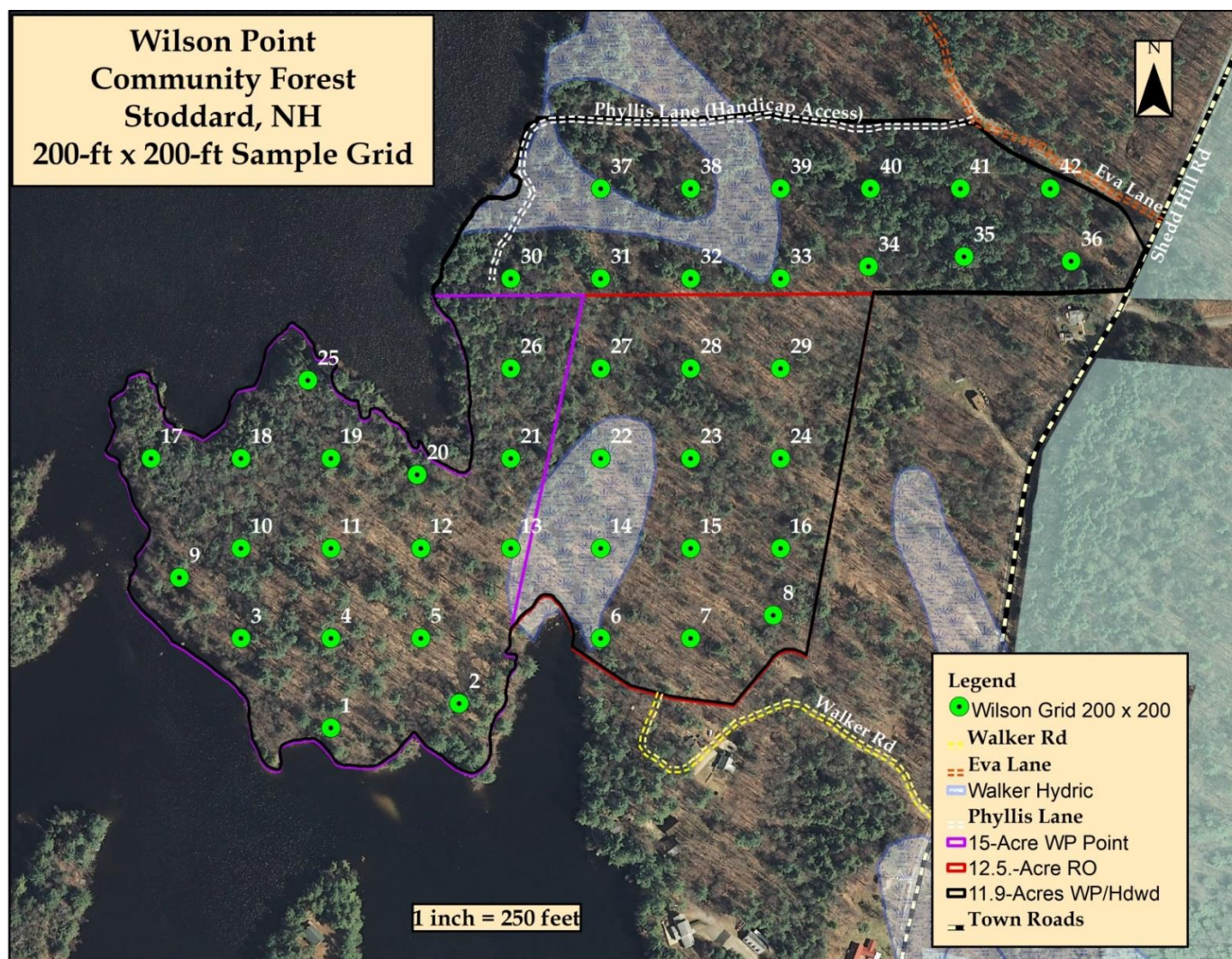
DRAFT



Very old red maple on the left, estimated to be 200-250 years of age; and 2 foot beech, straight and relatively free of beech scale.

Forest Inventory

A forest inventory, for timber volumes and values by species, was conducted in February, 2022, using a grid spacing of 200-ft by 200-ft. generating 42 sample points (less than 1-acre/point).



Additional non-timber data will be collected in the field at a later date that combines a quantitative collection of timber data with ocular estimates that “quantify” the relative abundance of 34 other attributes (see data field form). The timber data is processed and analyzed by a program developed by forester Ken Demaris (formerly of the NH Dept. of Forests and Lands) called “Fox DS Cruiser”. All other data collected is combined into a Microsoft Excel spreadsheet that, when imported into GIS software, links the spreadsheet to sample points that are displayed on the computer screen (often with a digital aerial photo background) that enables me to sort and select important attributes that help to describe the individual stands and/or the overall forest conditions.

The information gathered on the field data sheets allows the forester to write a narrative that accurately describes the woodlot with words, easy to understand tables, graphs, and pictures that identify the natural resource values unique to the woodlot in a manner that hopefully inspires the landowner to action.

Cruising Program:

Fox DS Cruiser version 2007.1d was used for field sampling procedure and data processing. The DS Cruiser is a forest inventory cruise data processor developed by the NH Division of Forests and Lands and field foresters to provide efficient estimates of forest stand conditions in the Northeast. The “cruiser” allows a forester to adjust the inventory procedure to field conditions and sampling elements proportional to their variability. The reports are designed to provide foresters with volume estimates as well as stand diagnostics for silvicultural prescription writing. The “cruiser” is run in Microsoft Excel. A variable plot sampling technique using a 20 BAF (basal area factor) prism was used to collect basal area, species, and product class data, while an 80 BAF angle gauge was used to measure tree height and diameter. This inventory methodology is often referred to as “Big BAF” or “Double Sampling” cruising. Below is a sample inventory form.

Field Procedure:

Information collected at each sample point included tree species, diameters, sawlog/pulp heights (in 16-foot log and half log increments), product class (categories were: saw logs, acceptable and unacceptable growing stock, and cavity trees), stand type (main species in the over-story, mid-story were listed in order of relative abundance; coarse and fine woody debris was based on ocular estimates of relative abundance), regeneration observations (listing presence/absence of main species in order of relative abundance), and silvicultural observations and recommendations. Other points of interest collected with the GPS include, but are not limited to the following: trails, roads, operability, vernal pools, important features of songbird habitat and wildlife sign, cultural features, rare plants, invasives plants, disease/insect problems, etc.

Computer Digital Data:

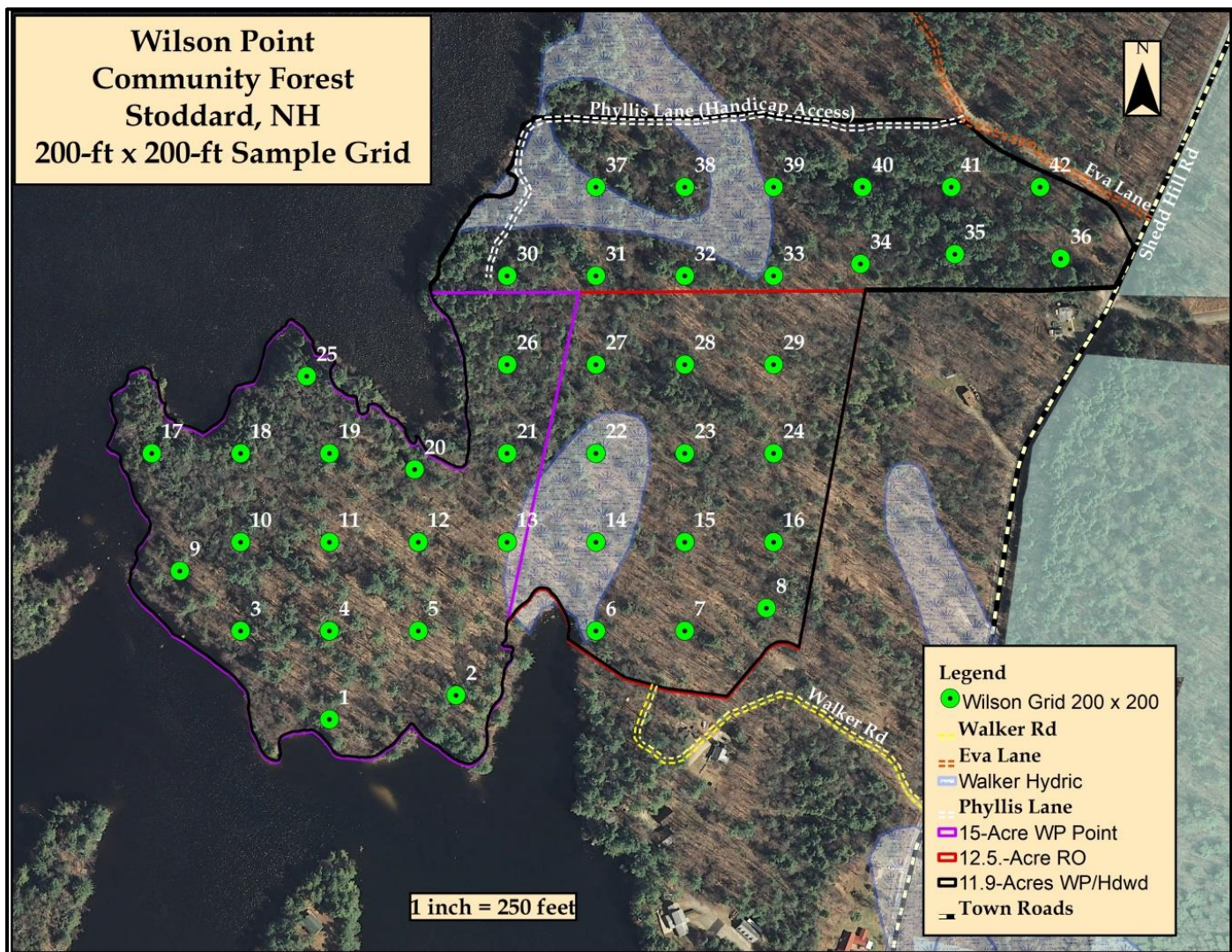
All maps and GPS data in this report are processed using ArcMap 10 software. The color aerial photos were 2010 vintage, obtained from the NH GRANIT, a statewide GIS service offered by UNH Complex Systems Research Center. Other digital layers were also obtained from the NH GRANIT. Examples of layers used, but not limited to, include aerial photographs, aquifers, hydrology (streams, lakes, and wetlands), conservation lands, unfragmented forest blocks, NH public roads, and USGS Quadrangle maps.

The digital shapefiles for mapping and GPS field work were created using the Stoddard Tax Maps provided by Southwest Regional Planning, Keene, NH.

Summary of Inventory Data and Analysis

A field inventory was conducted between the dates of February 10, 2022 and February 13, 2022 by NH licensed forester #151 Geoffrey T. Jones, assisted by Sabine Duran (his wife, who holds a Diplom Forstwirtin, Master Degree Forestry, LMU Munich, Germany).

Forty-two sample points were taken on a grid spacing of 200-feet by 200-ft (a very intense sampling grid).



The inventory field data was processed using the DS Cruiser, a forest inventory program developed by Ken Demaris, the former administer of the forest management bureau for the NH Division of Forests and Lands, to provide efficient estimates of forest stand conditions in the Northeast. It is widely used by state agencies in northern New England and by private consultants.

The Standard Error is based on an 80% confidence level. The SE for this cruise was 12.7%, which means that 80% of the time the volumes above are within 12.7% of the actual volumes. This is well within the industry level of acceptability.

Due to the loss of low-grade markets, there is no market for softwood pulp, hence the \$0.00 stumpage value.

Wilson Liquidation Volumes and Values

41 Acres; 42 Points; 12.7% Standard Error

<u>Species</u>	<u>BF Volume</u>	<u>BF Stumpage Rate/MBF</u>	<u>Cordwood Volume (includes top wood) in cords</u>	<u>Total Stumpage Value</u>
White Pine	333,000	\$ 150.00	50.0	\$ 49,950.00
Hemlock	108,500	\$ 45.00	275.0	\$ 4,882.50
Balsam Fir	3,500	\$ 90.00		\$ 315.00
Red Spruce	12,500	\$ 90.00	5.0	\$ 1,125.00
Red Maple	30,500	\$ 100.00	450.0	\$ 5,300.00
White Ash	22,000	\$ 140.00	75.0	\$ 3,455.00
Aspen	0	\$ 40.00	25.0	\$ 125.00
White Birch	0	\$ 65.00	60.0	\$ 300.00
Yellow Birch	4,000	\$ 85.00	25.0	\$ 465.00
Beech	0	\$ 35.00	120.0	\$ 600.00
Red Oak	92,000	\$ 350.00	65.0	\$ 32,525.00
Total	606,000		1,150	\$ 99,042.50

NOTE: BF stumpage prices based on NHTOA 3rd Quarter 2021 "Market Pulse"; cordwood stumpage is \$5 cord for hdwd; \$0/cord for softwood. The stumpage prices have been volatile, especially the softwood pulp markets.

On February 14, 2022, a fair market stumpage value for the Wilson three lots was established at \$99,000+/- .

Fellow Stoddard resident, George Davenport, head log buyer for HHP, Inc. in Henniker, had his licensed forester Matt Apgar review timber quality and value. His report is as follows:



February 21, 2022

Mr. Geoffrey Jones, Chair
Stoddard Conservation Commission
1450 RT123 North
Stoddard, NH 03464

RE: INDEPENDENT REVIEW OF STANDING TIMBER VALUE, WILSON POINT COMMUNITY FOREST

To Whom It May Concern:

My name is Matthew Apgar, and I am a Licensed New Hampshire Forester, (since 1992), employed by HHP, Inc. in Henniker, NH. HHP, Inc. has been in business since 1967 and saws nearly 13 million feet per year of hardwood lumber, along with operating a log concentration yard at our facility in Henniker, New Hampshire. I was asked to perform an independent review of the timber cruise and valuation done by Geoffrey Jones of the Wilson Point Community Forest located in Stoddard, NH which I completed on February 18, 2022.

After reading Mr. Jones' cruise report and the supporting documents provided to me, I performed a cursory walk through of the lots. As noted in the aforementioned report, this forest is comprised of the species that typically make up New Hampshire woodlands in this part of the state. Among them are White Pine, Red Oak, Hemlock, Spruce, and all of the mixed hardwood species commonly found in the region. The two most commercially viable species on this parcel are White Pine and Red Oak. The overall quality of the White Pine is average, with multiple large diameter stems present that appear to be in excess of 100 feet tall. While large and tall, the timber value of these stems is offset somewhat by the presence of lesser quality top wood logs and low grade material, for which there are limited or no markets. White Pine of this diameter and height will oftentimes be afflicted with some internal rot that does not cause immediate mortality but reduces timber value. Referring again to Mr. Jones' report, he has made note of the large tops of these trees that stick up prominently from the canopy of the surrounding forest, causing them to bear the brunt of damaging winds, ice, snow, etc. While some of these tops appear to be wind beaten, the presence of deep green colored needles indicates to me that these stems are reasonably healthy at the very least.

There are several very large, tall, and straight Red Oak stems present on this property that indicate the presence of high value saw timber with the balance of the Red Oak trees showing common defects such as frost cracks, crooks, and poorly healed limb scars. I noticed very few stems with the potential of grading out as veneer quality material.

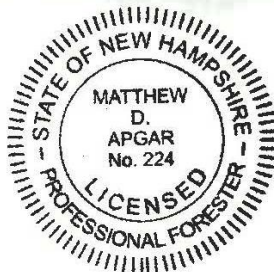
I previously mentioned the presence of other, more commonly found hardwood and softwood species present in this forest that are typical in most New Hampshire woodlots. I found all of these to be average in quality and quantity.

The volumes generated by Mr. Jones in his report are calculated from a very intensive timber cruise, (slightly more than one plot per acre), with very high confidence levels from the statistical analysis point of view. The volumes and values listed in Mr. Jones' report represent a liquidation valuation of the timber resource on this parcel and are not intended to be used pursuant to a harvest; they have been presented in order to aid in the appraisal of the parcel's real estate value.

Based upon all of the above, I determine that Mr. Jones' use of average fair market value for each species and product is appropriate.

Respectfully submitted,

Matthew D. Apgar
Licensed NH Forester #224



PO Box 489, 14 Buxton Industrial Drive, Henniker, NH 03242 Tel: (603)-748-6212 mapgar@hhp-inc.com

Draft Mgt. Plan

The Little Big Forest Ecological Reserve

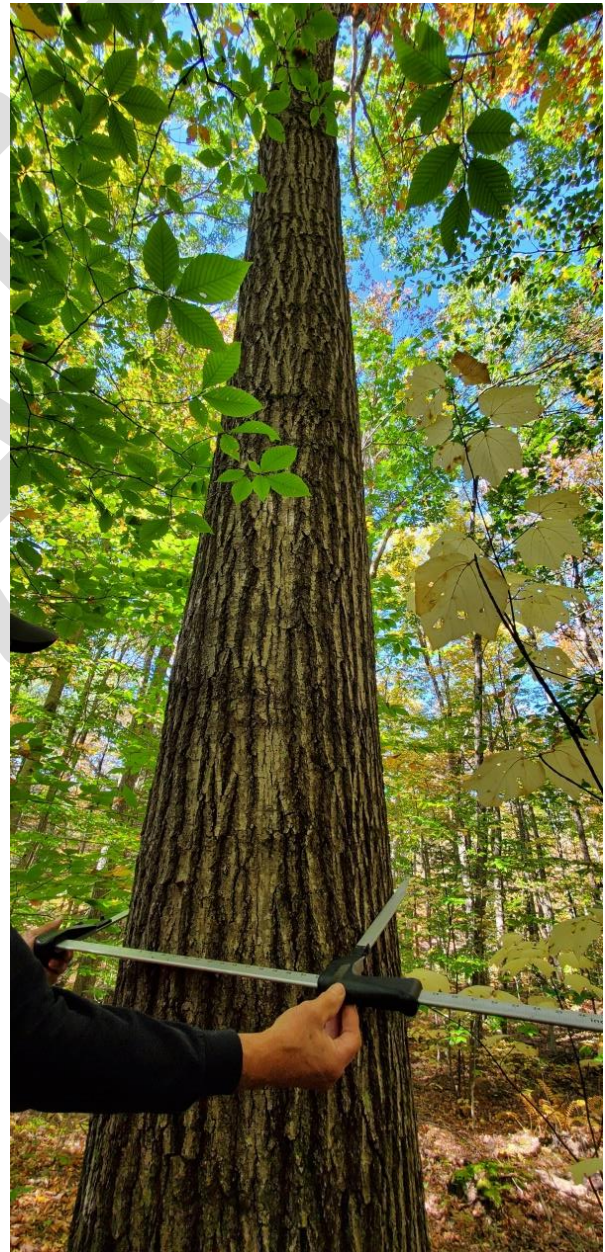
and Education Center

G.T. Jones Licensed Professional Forester #151

May 15, 2022

Timber Management

As the timber inventory revealed, this property has tremendous timber volume and value. Individual white pines have 1,500 to 2,000 board feet of lumber while scattered red oak stems have 600 to 800 board feet. Increment core borings on selected individuals of white pine and hemlock indicate 10-12 rings per inch. That translates into individual trees having an estimated age of 150 to 200 years of age. In looking at the predominate species mix of mid-tolerant white pine and red oak growing in association of climax species of hemlock, sugar maple, American beech and yellow birch, it took hundreds of years for these stands to naturally evolve. Wind has been the dominate force of disturbance in this forest: not man!



On November 2, 2021 nationally renowned Terrestrial Ecologist Tom Wessels spent 2+ hours inspecting the unique ecological traits of this forest and summarized them in the following manner: *"At the request of Geoff Jones, I walked the Wilson Property with him and two other members of the Stoddard Conservation Commission the morning of November 2, 2021. As soon as we entered this parcel from its southern border, it became clear:*

- That it was a parcel that had always been forested with evidence of a minor logging of red oak in its southeastern portion about 50 years earlier.*
- It could be discerned that the parcel was never opened for agriculture due to the stump evidence left by that logging.*
- There were a number of coppiced red oak stumps that showed evidence of being logged twice, once about 50 years ago based on the level of stump decay and then about 100 years before that, based on the coppiced stump diameters.*
- The original oaks when cut were probably at least 60 years old, meaning that they germinated from acorns in the early 1800s, long before agricultural land in the region started to be abandoned.*

As we continued into the forest:

- All evidence of logging disappeared with the only visible evidence of disturbance being from blowdowns related microbursts and the 1938 Hurricane.*
- This is not an old-growth forest, but it is a far older forest than is commonly seen in the region, with scattered old-growth trees.*
- The most impressive being a large red maple with very coarse bark plates that I am guessing exceeds 250 years of age.*



- The other attribute that was evident were its forest soils that were well developed and spongy due to the forest's age.*

- Soils like these hold their nutrients tightly and add greatly to the local water quality of this section of the lake.
- Along with about 4,000 feet of undeveloped shoreline, this parcel is an important habitat for aquatic wildlife in this otherwise heavily developed shoreline.

As we continued to the northern portion of the property:

- We came upon an old barbed wire fence line with evidence of trees along it that had low limb knobs indicating that north of the fence line was once open, most likely for pasture.
- Within this section of the property was a small lakeside cabin with water access.

One other feature of the property that is quite impressive:

- Are its large, tall, straight white pines.
- It is rare to see trees of this stature these days since they are so highly valued as timber. There was also no evidence of any invasive species during the walk.



*Due to all these features: The Wilson property is an impressive forest holding that I think is an important candidate for conservation. **One that should remain unlogged to maintain its current attributes and acceptance.***

Tom Wessels
Terrestrial Ecologist
Professor Emeritus, Antioch University

The February 2022 inventory was conducted to determine the species volume and value of this forest so that the public will understand the “conventional economic value” of this forest. However, it is hoped that in the end, folks will have a greater appreciation for the ecological values of this forest

and appreciate that these values far outweigh any monetary value that felled trees would yield in lumber.

The Town, through its conservation commission has a golden opportunity to demonstrate to the public the values of undisturbed older forests, by allowing the established older growth and mature ecosystem conditions to continue in a natural ecological succession with minimal and/or no human intervention, on a forest centrally located and readily accessible.

A conservation (or “Forever Wild”) easement would ensure this in perpetuity, pending public comment.

Secrets of Old(er) Growth Forests

While there is no universally accepted definition of old growth, the term came into use in the 1970s to describe multispecies forests that had been left alone for at least 150 years.² The WLC has species composition, multiple age and diameter classes, and vertical diversity layering that are consistent with old-growth characteristics.

The summer and fall of 2021 were exceptionally wet, with well over half the year’s rainfall arriving, setting the stage for an explosion of mushrooms. The variety of colors, shapes, and species was described by a visiting mycologist as a “fungal feast”. Mushrooms are the fruiting bodies of underground fungi: the species abundance and diversity is indicative of a robust and expansive fungal network; they are clear visual indicators of a healthy forest soil, which is where ecosystem health and all forest life begin.

Decomposition, or decay, is the very beginning of a fundamental natural process that enables life. There is no regeneration without degeneration of organic compounds, because energy is not lost, it is transformed – and it is the fungi that are heavily responsible for this vital transformation. For example, if we look at a fallen tree in the forest and imagine it is composed of building blocks, we can understand how decomposition works: fungi weave their way through the blocks, loosening them until they are “free” and ready to “rebuild” in another form. Rising phosphorous levels in a lake can pose a serious threat of toxic Cyanobacteria blooms, especially when the air and water temperatures rise.

About 500 million years ago, fungi facilitated the movement of aquatic plants on to land, fungal mycelium serving as plant root systems for tens of millions of years until plants could evolve their own. This association transformed the planet and its atmosphere – the evolution of plant-fungal partnerships coincided with a 90% reduction in the level of atmospheric carbon dioxide. Today, most plants depend on mycorrhizal fungi – from the Greek words for fungus (mykes) and root (rhiza) – which weave themselves through roots, provide plants with crucial nutrients, defend them from

² Smithsonian Magazine. Science/January 2022. “The Old Man and the Tree.
<https://www.smithsonianmag.com/science/the-old-man-and-the-tree-180979242/>

disease and link them in shared networks sometimes referred to as the “wood wide web”. These fungi are a more fundamental part of planthood than leaves, wood, fruit, flowers or even roots.³



A mosaic of the mushroom diversity photographed on WCF, September of 2021.

Dr. Rick Van de Pol.....(a mycologist) identified them: **Upper left** - *Hygrocybe flavescens*, edible, but not great; **Upper right** - *Coltricia perennis*, not really edible but medicinal (immune support, etc.); **Center right** - *Tricholoma fumosoluteum* (or close), poisonous and ill-smelling; **Lower right** - *Cortinarius iodes*, Iodine Cort, edible, not too bad but don't eat too many of them; **Lower inside right** - *Geoglossum simile* or black earth tongue, edibility unknown; **Center** - *Inocephalus quadratus*, Salmon Unicorn Cap, poisonous; **Lower left** - *Trichaptum biforme*, Violet-tooth Polypore, not edible

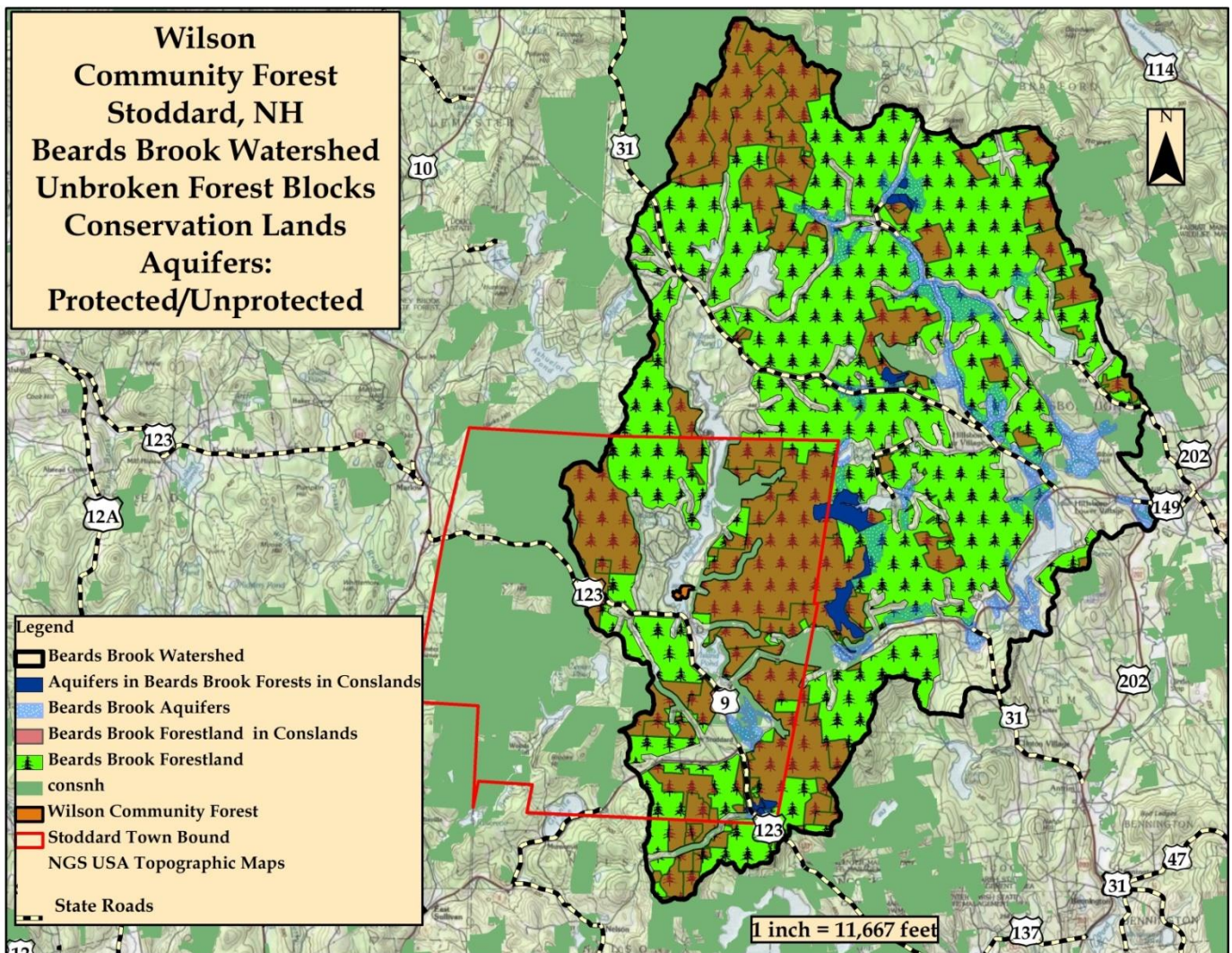
³ Kiers, Toby & Sheldrake Merlin; “A powerful and underappreciated ally in the climate crisis? Fungi. *The Guardian*. November 30, 2021. <https://www.theguardian.com/commentisfree/2021/nov/30/fungi-climate-crisis-ally>

but medicinal (anti-cancer); Lower left above - Hygrocybe miniata, Fading yellow waxy cap, edible but watery; Left center - another Cortinarius iodes.

Water Quality

Eighty-four percent of NH is forested, which provides a natural filter for drinking water, blessing this state with an abundance of high-quality ground and surface water. Forests provide the environs for unmolested headwaters, uplands, and basins for streams, rivers, ponds, lakes and wetlands that are all connected through complex ecological processes.

Because forests act as a great filter and produce some of the purest drinking water there is, converting forestland to non-forested uses poses a great threat to our water quality through poor land use practices and accidents. WCF lays in the southwestern side of the 77,293 acre Beards Brook Watershed. It is interesting to note that 53,744 acres of this watershed or 69% consists of large forested blocks (these “unfragmented forest blocks have no development; no utility lines; no public roadways). In addition, 24,675 of those forested acres or about 32% has been protected from development, which more than triples the statewide average of 10% of NH's drinking water that comes from protected sources!



Within the Beards Brook Watershed Forestland owners can play an important role in maintaining high water quality standards by leaving buffers around water courses, wetlands, ponds and lakes, and by following best management practices (BMP's) when engaged in farming and timber harvesting projects that disturb soil.

Acquiring the WCF into the protective custody of the Stoddard conservation commission would provide the best long-term protection for the surface and ground water quality of this forest, because the land would not be subjected to disruptive uses of logging or site conversion to development!

<u>Feature</u>	<u>Number of Parcels</u>	<u>Acreage</u>	<u>Percent of the Watershed</u>	<u>Significance</u>
Beards Brook Watershed	1	77,293	100%	25 largest out of 113 Watersheds state wide

Unfragmented Forest Blocks	16	53,744	69%	Unbroken forest blocks provide the best source of surface and drinking water and the best habitat for wildlife, especially large apex predators.
Conservation Lands	158	24,675	32%	Land Trusts have set a goal of protecting 30%+ of the land in each town; each state. The late world reknowned biologist E.O. Wilson suggests we need to protect 50% of the Earth. These two figures are the yardstick by which to measure our progress
Unfragmented Forest Blocks in Conservation	113	20,843	27%	It's one thing to have large, unforested blocks: it is best to protect them from future development with conservation easements or fee ownership by governments or land trusts
Wetlands	1,251	7,738	10%	Wetlands on the surface provide a hydrological link to underground aquifers. It is important to protect them from contamination. Wetlands embedded in forestlands that are under easement is the best form of protection for water sources.
Wetlands Protected				
Aquifers	91	5,002	7%	Less than 10% of the drinking water sources in NH are protected.

Wildlife

The lands adjacent to the WCF include former pastures long since abandoned are reforested, fire scarred lands whose forest types show the progression of vegetative succession from such disturbances, ledge outcrops, stands of high elevation red spruce, wetlands, managed forestlands of white pine and mixed hardwoods, and pockets of old-growth scattered throughout a predominate northern hardwood forest. Most of the reptiles, amphibians, birds and mammals that one would expect to find in this region historically, can be found on these lands, remain a true testimony to the resiliency and resource richness of this land.

The 3-Wilson lots combined offer diverse and valuable habitat for mammals, songbirds, amphibians, reptiles, and waterfowl. The forest has vertical diversity and a diversity of tree species that provide mast, covers, and appeal to a variety of songbirds and mammals. With over 4,000 feet of undeveloped, irregular shoreline that has shallow waters with stumps and rocks that precludes

motorboats, provides excellent shelter and habitat for waterfowl. Upwards of 20+ ducks and a pair of loons were observed in the protected bay. While conducting the traverse, fresh deer scat was observed in several areas, barred owls were calling, winter wrens, hermit thrushes and other songbirds were in their spring song. Many locals have observed wildlife (bear, turkey, fox, and coyotes) crossing Shedd Hill road from the protected lands of the Pierce Reservation to these lots. Additionally, ducks, geese, and loons are frequently observed in the waters along the shoreline and bay of these properties. It is a sanctuary for wildlife, waterfowl, and people paddling in canoes and kayak.

A more comprehensive summary of wildlife habitat features will be completed once a field inventory has been conducted in the first half of 2022.

Snags and Den Trees

Pending a follow-up field inventory to the February timber inventory.

Song Bird Habitat

Pending a follow-up field inventory to the February timber inventory.

Community Benefits to the Town

Wilson Point Shoreline Benefits

WCF has over 4,000 feet of undeveloped shoreline on a lake that has over 19 miles of heavily developed shoreline. When combined with the 1-mile+ of protected shoreline in Pickerel Cove, the town has the opportunity to protect nearly 10% of the lake frontage. This is significant, given the important role that natural shorelines have in contributing to the ecological health of lakes.

Shoreline Facts⁴

- Qualities that make shorelines attractive to wildlife may be very different than what makes them attractive for boating and swimming;
- Shorelines bordered by mature forests are critical yet rare habitats in NH;
- Shorelines surrounded by large blocks of forest will support the greatest number of wildlife species;
- Wilson Point provides 4,000 feet of protected shoreline with 40 acres of mature, undisturbed forests. Native aquatic vegetation, submerged rocks, boulders, logs, stumps and dead trees that have fallen in the water are all features with high quality shoreline habitat, can flourish without the threat of development;
- Bald eagles live beside the waters of lake and larger rivers. They depend upon large trees along the shore for both nesting and winter roosting. Wilson Point has dozens of super canopy white pines along the shore (2-3+ft in diameter; 100+ feet tall);

⁴ NH Cooperative Extension Fact Sheet on "Shorelines"

- Wilson Point has several shallow coves protected from motor boats by stumps and logs. Artificial nests could be safely placed in these protective areas;
- Wilson Point provides potential habitat for over 33 species of NH wildlife that can be found along undeveloped shorelines, of which 8 are state threatened or endangered species;
- Once water quality and habitat has been degraded, it can be very difficult to restore its quality;

Natural shore lands are often used as travel corridors by many animals including moose, deer, bear, mink and otter. When they are absent it can result in more human/wildlife conflicts, but more likely results in a loss of these species of wildlife in the area. Natural shorelines take on added importance when they help link larger blocks of valuable protected wildlife habitat. They play an important role in maintaining the health of the surrounding forests, residential areas and aquatic life of the lake!

These lots provide such a link; an “ecological umbilical cord” that allows the “ecosystem services” generated on the thousands of acres of protected lands to the east, to connect with and flow to the terrestrial and aquatic ecosystems that the Highland Lake ecosystem health relies upon!



Live trees and snags along the shore (cavity trees) offer nest sites for wood ducks, mergansers, owls, woodpeckers, nuthatches, wrens, and bluebirds. Squirrels, bats, fishers, porcupines, gray fox also use cavity trees to rest in. King fisher, swallows, hawks, and osprey perch & feed on branches of snags that hang out over the water.

All of these species interact with aquatic life and processes and enhance the biodiversity of both the land and the water, which is critical to the health of the lake ecosystem.

Trees, shrubs, and vines produce a variety of berries, seeds, and nuts. Highbush blueberry, dogwoods, viburnums, shadbush are some examples of berry producers that the above aforementioned species will use. Highbush blueberry shrubs line a majority of the 4,000 foot shoreline. Manicured lawns and altered vegetation results in less biodiversity of birds, insects, and mammals, whose collective absence have a negative impact on the lake ecology.

Diversity of vegetation attracts insects that are a critical source of food for birds, fish, and other aquatic organisms. Dragonflies feed along the water's edge and often lay eggs in the water, producing aquatic larvae that are a source of food for frogs, snakes, salamanders, snakes, turtles, herons, mink and fish.

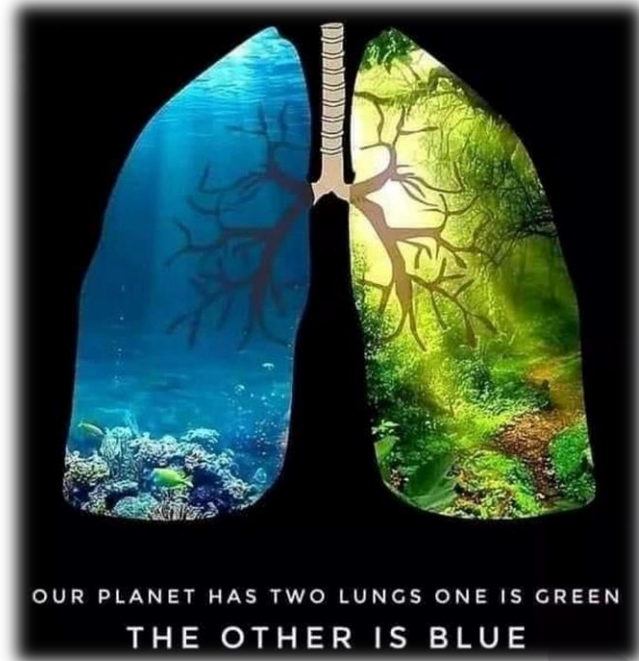
Undeveloped land within 100 feet of a shoreline helps to protect water quality and provide some (if not all) the habitat for many species of wildlife, reduce floods, moderate water temperatures and filter sediments and nutrients.

NHDES has buffer zones of 50 to 150 feet; the USF&W has buffers up to 500 feet. The Reason for these "no build buffers": is to protect a significant amount of activity in the soils that involve subterranean amphibians, salamanders, soil microorganisms, and mycorrhizal fungi. The latter is particularly important in the uptake of phosphorus, which is one of the major nutrients required by plants. *Plant uptake keeps the phosphorous from accumulating in the lake where it is often the limiting nutrient for aquatic blooms.*

The shoreline along Highland Lake is approximately 80%+ developed; with the exception of Pickerel Cove, it lacks large sections of natural shoreline for all of the above attributes to exist and or thrive.

Storm frequency and intensity is increasing as the insidious effects of climate change intensify the result of the burning of fossil fuels and inaction by politicians and the public. One of the best natural system "shock absorbers" is forests: particularly undisturbed forests, of which the majority of land in Stoddard falls under. This is doubly important, as Stoddard sits on the watershed divide between the waters that flow east into the North Branch of the Contoocook that flows into the Merrimack and waters on the west side of town that flow into Otter Brook which joins the Ashuelot in Keene, which then joins the Connecticut River to the west.

Benefits to Highland Lake (As A Model to Address Other Lakes In NH Under Siege)



Lakes have to breathe too!

They do that with the delicate process between plants and aquatic life. Clear waters allow sunlight to penetrate the water. During the day plants produce oxygen through the process of photosynthesis and oxygenate the water so fish and other aquatic life can breathe.

Undeveloped shorelines serve as an ecological pipeline and help to ensure that the “lungs of the lake” function properly, the way they always have.

Trees, shrubs, and vines produce a variety of berries, seeds, and nuts. Highbush blueberry, dogwoods, viburnums, shadbush are some examples of berry producers that crowd the sunny shores and hang their branches out over the water.

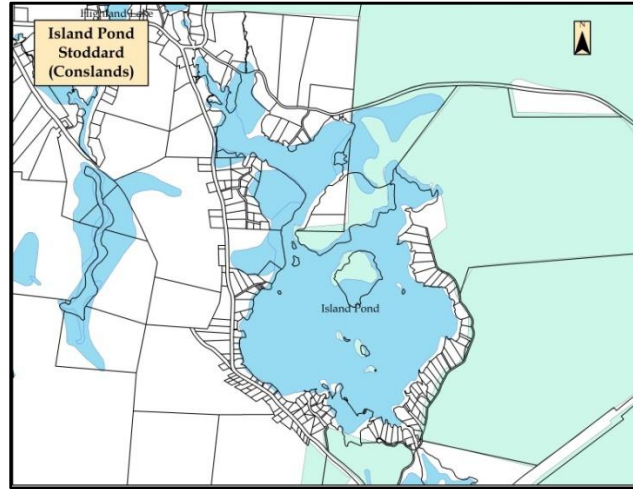
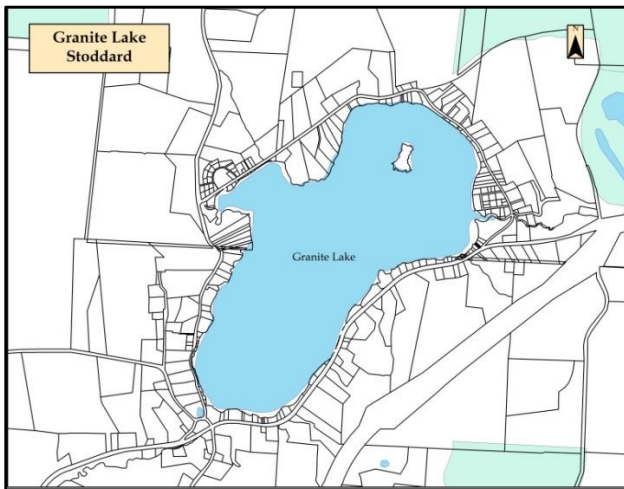
Diversity of vegetation attracts insects that are a critical source of food for fish and birds. Dragonflies feed along the rocky edge and often lay eggs in the water, producing aquatic larvae that are a source of food for fish, frogs, salamanders, snakes, turtles, herons, and mink.

Live and dead trees (snags) that have cavities provide nest sites for wood ducks, mergansers, owls, woodpeckers, nuthatches, wrens, bats and bluebirds. Squirrels, fishers, porcupines, gray fox also use cavity trees to rest in. King fishers and swallows feed on branches of snags that hang out over the water. Hawks, bald eagles and osprey all perch on the dead branches of tall pines that circle the shore.

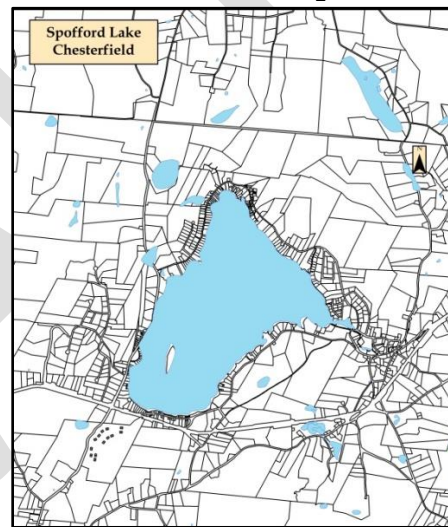
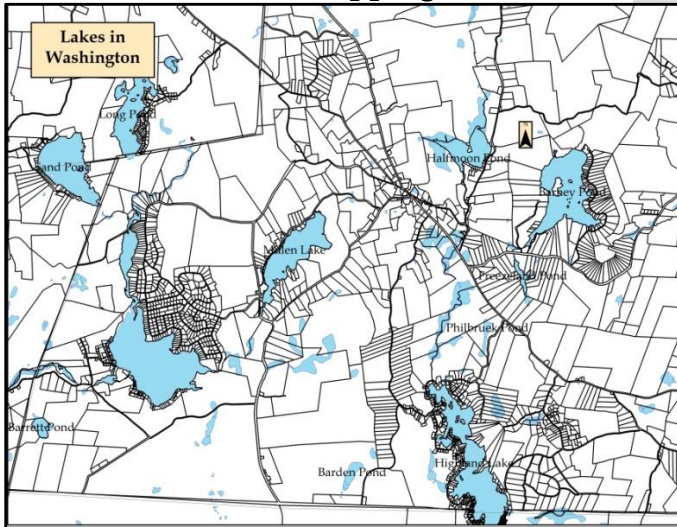
Undeveloped shorelines provide travel corridors used by many animals such as moose, deer, bear, mink and otter. They take on added importance when they help link larger blocks of valuable protected wildlife habitat.

Undeveloped land within 100 feet of a shoreline helps to protect water quality and provide some (if not all) the habitat for many species of wildlife, reduce floods, moderate water temperatures and filter sediments and nutrients from surface runoff.

The interaction between undeveloped shoreline where shrubs and trees hang over the water's edge; where dead and dying trees provide habitat for insects that in turn help feed the fish....all help to ensure that the “lungs of the lake” function properly, the way it always has.



What are we doing to our lakes? Ecologically speaking we are “sentencing them death row” because we are stripping them of their ecological lifeline: undeveloped shoreline!!



When shoreline is developed; trees and shrubs are removed, along with dead and decaying wood and replaced with lawns, fertilizers, pesticides, and docks, the age-old process that has kept lakes healthy is compromised.

The Wilson lots provide an “ecological umbilical cord” that allows the “ecosystem services” generated on the 40-acre forest AND on thousands of acres of protected lands to the east, to connect with and flow to the terrestrial and aquatic ecosystems that the Highland Lake ecosystem health relies upon!

Benefits Relative to Storms & Runoff

Development has permeated the hills of the watershed between the shoreline and Shedd Hill road to the east; extensively along the west from the Mill Village Store extending north to its end in Washington.

The Hidden Lake developed, established in the mid 1970's, has had a profound negative impact (increased nutrient and sedimentation runoff during storm events) on Kennedy, Rice, and Upton Brooks that flow into Highland lake along the southwestern side.

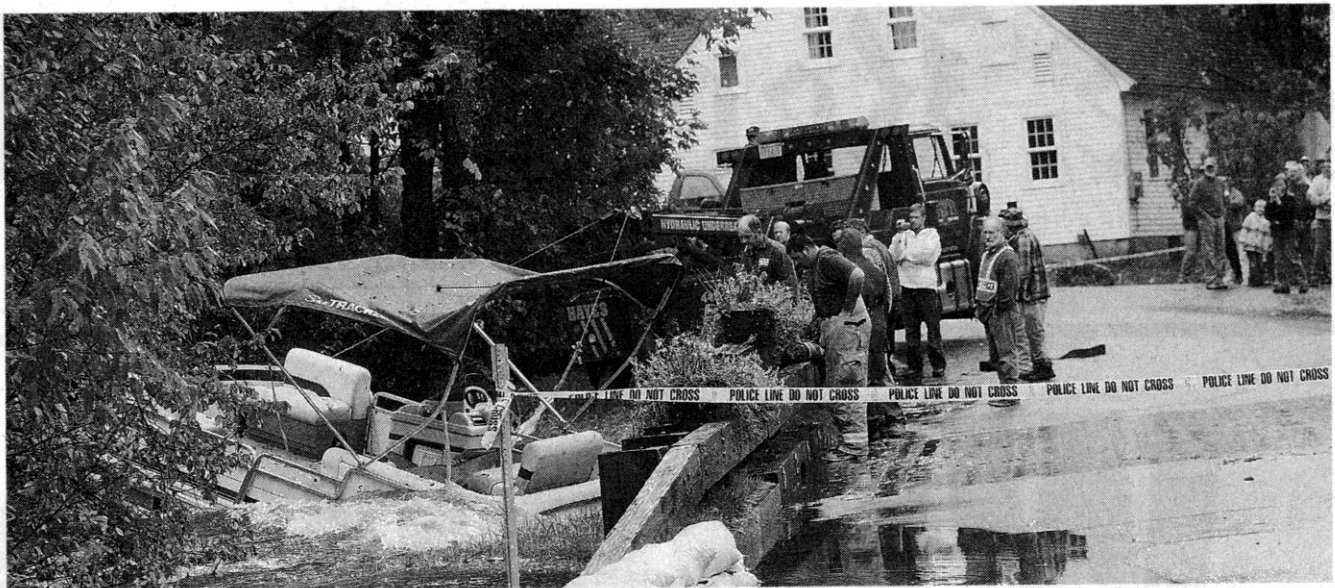
This extensive development south of Pickerel Cove on both sides of the lake, and the high density siting of camps on the Washington end, collectively diminish the health and vigor of the forests, soils and water quality of Highland Lake....a lake that is eutrophically (nutrient enriched) advanced.

This intense development will have long range negative impacts on groundwater as septic systems age and begin to inevitably fail; as it fails it will put the lake water at increased risk from nutrient enrichment that results in algal blooms, die-off and inevitable reduction of available oxygen for aquatic life. More development means less permeable soil that results in greater surface water runoff as the 2005 October flood demonstrated.

REGION

TUESDAY, OCTOBER 11, 2005

Flood of 2005: Stoddard, Marlow



PAUL GARCIA

RUN AGROUND — This pontoon boat broke free of its mooring on Highland Lake in Stoddard and was jammed by floodwaters under a bridge. The dam was barely visible as water spilled over the sides. Sand bags were deployed to protect the firehouse, which had become the command center.

Stoddard prepares for worst

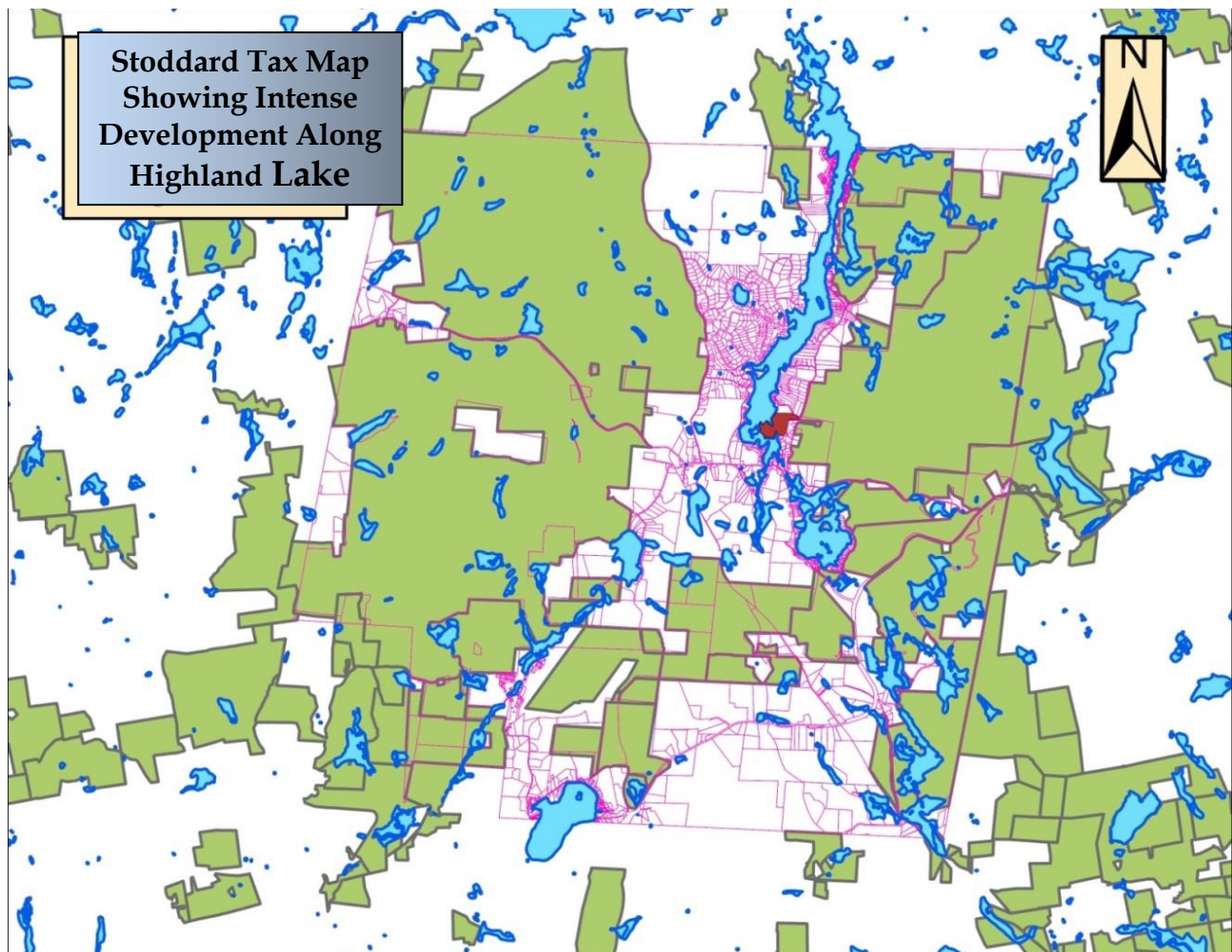
By **NIKA CARLSON**
Sentinel Staff

through the rushing water in the inky dark, she said.

held out until Monday, when they were evacuated by boat from their

with help from the Concord-area fire departments, Lamothe said.

1



As groundwater becomes nutrient enriched from the intense development (septic systems, lawns and use of fertilizers and weed killers), well water will be compromised (or pumped dry: a combination of overuse and climate induced droughts....there are no stratified aquifers in the watershed; all well water comes from the bedrock).

As water quality degrades, so too, will the recreational experience for swimming, boating, fishing, and just plain sitting on the dock or porch. Add to this degraded experience, hillsides packed with development, night lights, barking dogs, lawn mowers, loud music and always....always the background din of Rte. 9 and 123 traffic noises (much of the most obnoxious noise comes from Hidden Lake). All of these aforementioned factors beg that more undeveloped shoreline be spared the fate of most of the lake, its ecological welfare will be greatly enhanced if WCF is protected.

Stewardship Benefits

Sixty-five percent (65%) of the town is permanently protected. This property gives the town a permanent opportunity to institutionalize the importance of land protection and to instill a love and

understanding of land for ALL generations, by providing a formal place to conduct long-term environmental education in a spectacular and iconic setting!

- Easily accessible to residents (seasonal and permanent) from both land and water with options for a small parking lot and waterfront dock (due to shallow waters, probably limited to small boats);
- A well-built rustic cabin that could easily be transformed into an outdoor learning center for children at the James Faulkner Elementary School (that already has a robust outdoor education center) and adult environmental programs,



Recreational Benefits

A launch site for canoe/kayak field trips to and from Pickerel Cove and the town forest of Pioneer Lake/Stoddard Rocks/Williams Old-Growth forest;



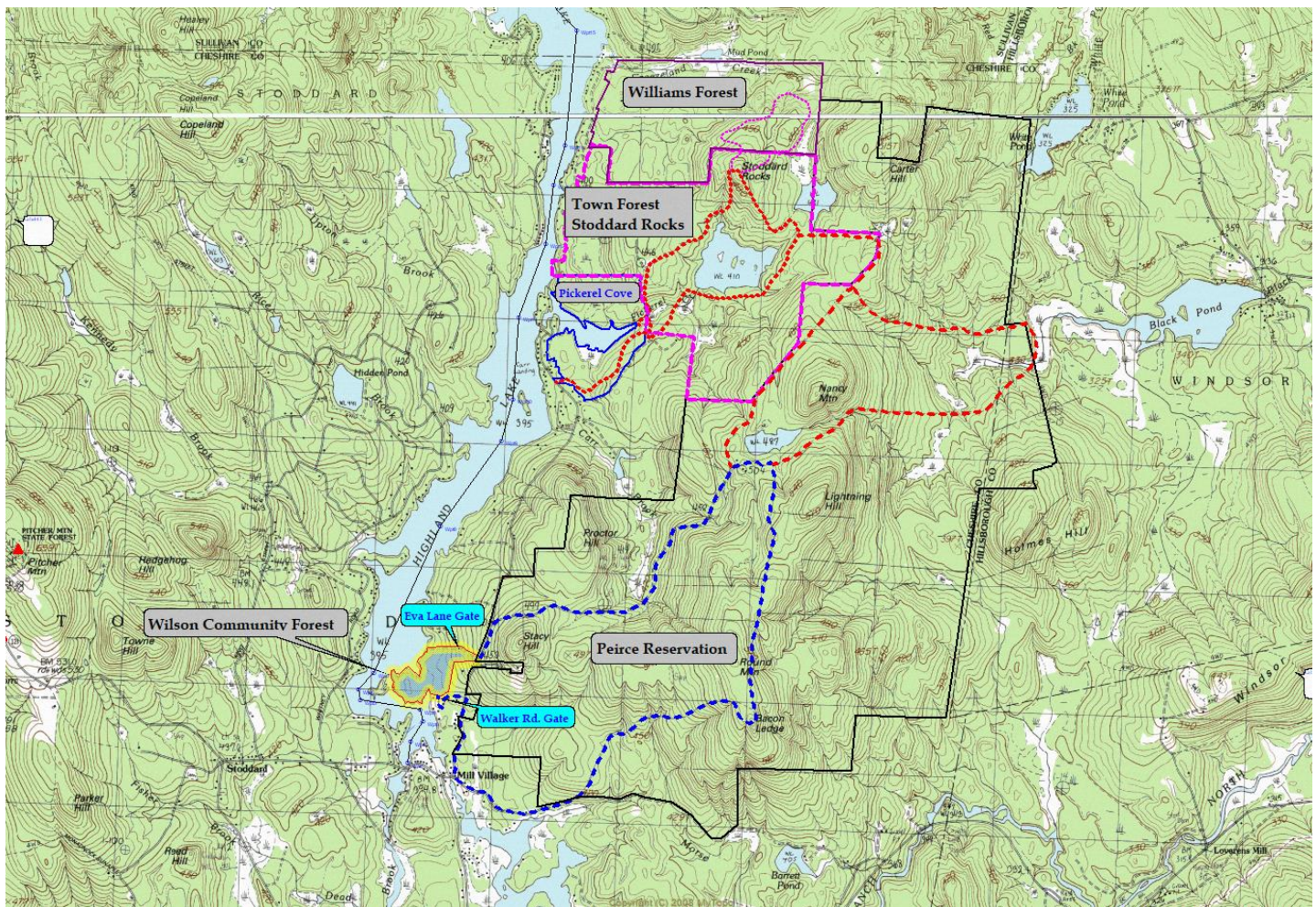
- A destination for canoeists and kayakers as a way to stretch their legs;
- A gathering spot for organized canoe and kayak trips along the lake; or integrated boating and hiking field trips to the town forest and the Stoddard Rocks trail network via Pickerel Cove; hikes to a vast network of trails on the adjacent Peirce Forest & Wildlife Reservation and

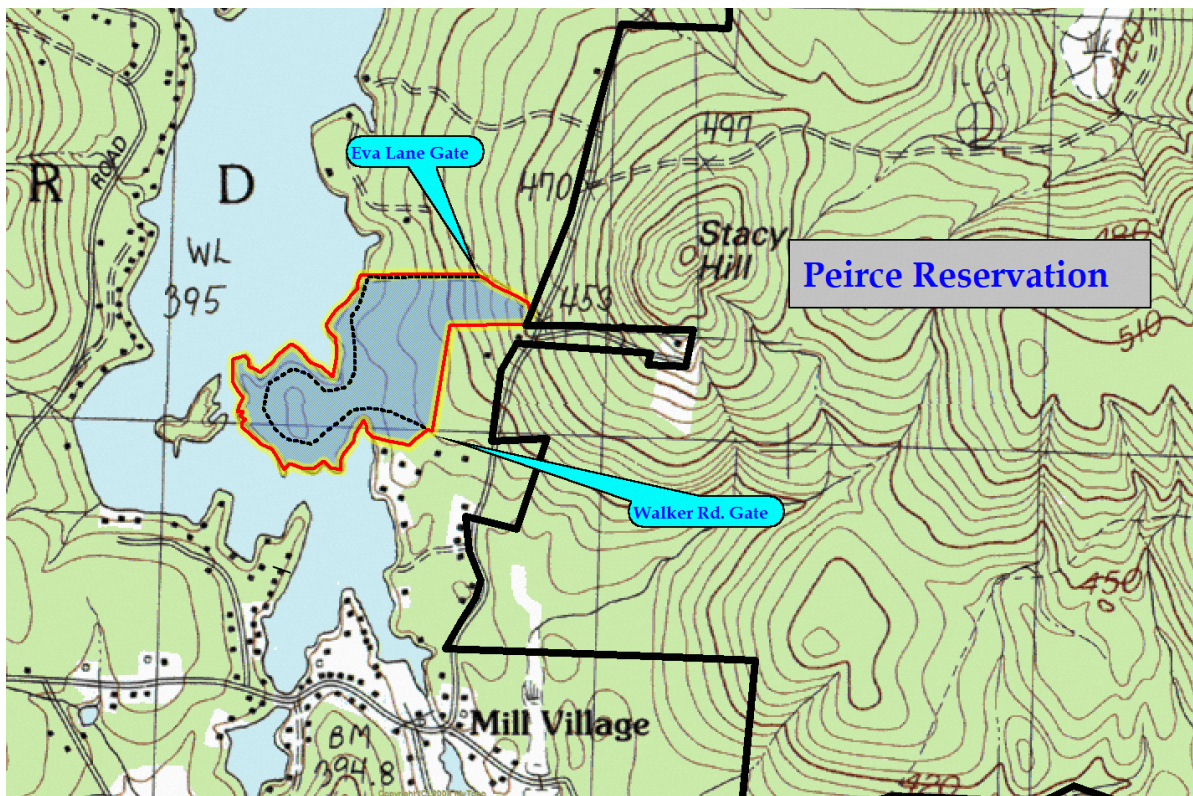
thousands of acres of conservation lands; canoe/kayak trips between Highland Lake and Island Pond (with a short portage);

- Could host a geriatric user friendly trail to scenic outlooks;
- Could host an ADA trail enabling physically challenged individuals the opportunity to experience older/ecologically mature forests that are usually in remote, difficult areas to access;
- Could host a primitive/low-impact overnight campsite for organized youth groups like JFES students, local Scout groups, and Kroka;
- Protecting lake water quality protects the real estate values of all lake residents!!

Care and diligence must be taken when laying out and using hiking trails, because foot traffic can disturb wildlife in one or more of the following ways:

- Physiologically by creating stress: increasing the heart rate, temperature, or hormones;
- Behaviorally: altering foraging habits, heightened vigilance, fleeing from perceived predators;
- Reproductive success: reducing the number of nest built, eggs laid, or young born and successfully raised;
- Predation: scaring away adults leaves young behind, vulnerable to predation; adults may be preyed upon in their flight.
- Mortality: fleeing animals cross highways and are hit; wheeled vehicles crush small critters on woods roads and trails.





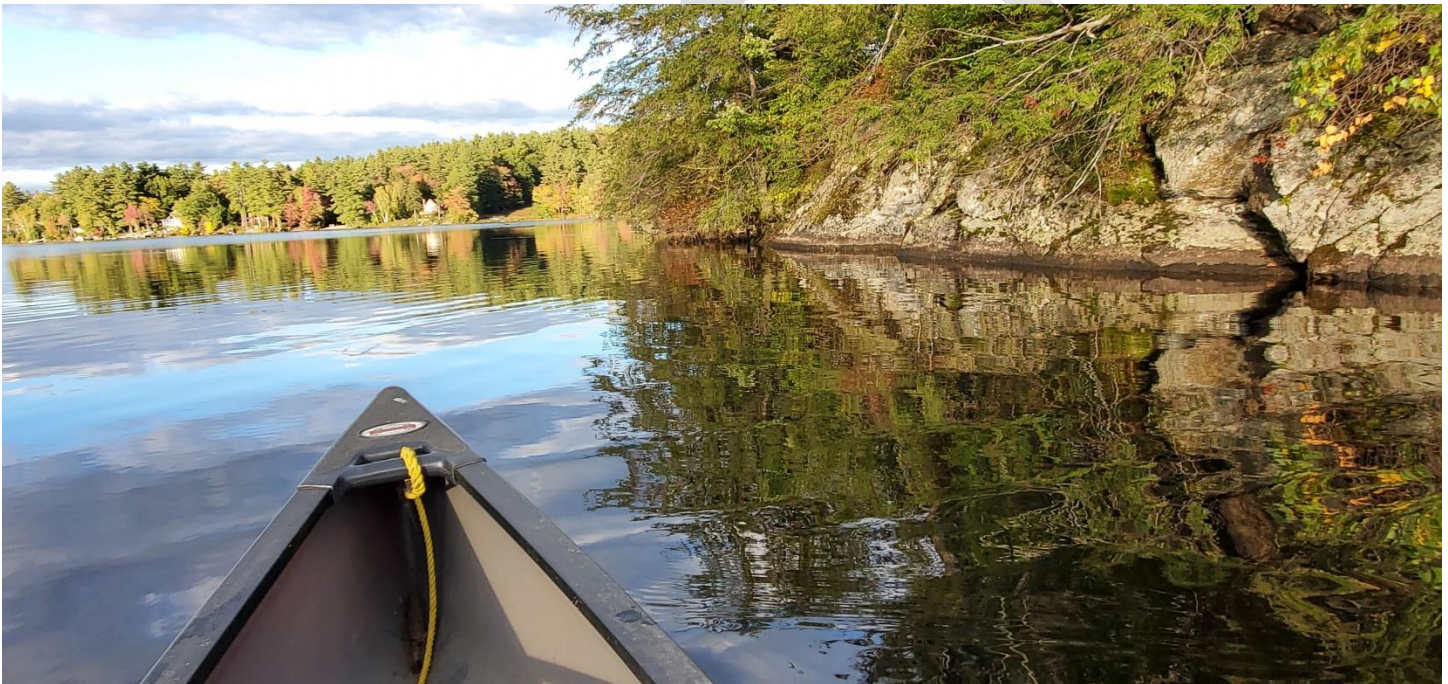
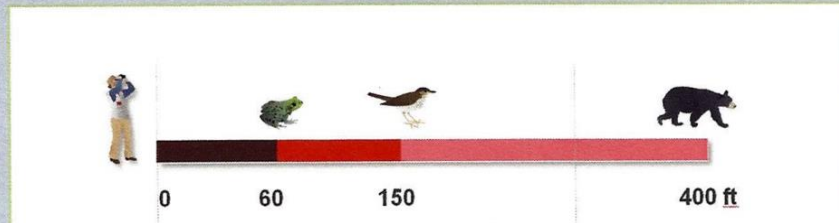
While disturbances may seem brief and innocuous, the cumulative impacts from intermittent OR frequent use can be significant, particularly during breeding seasons, during harsh winters, or during hunting season, when they are already energetically stressed.

The N. H. Fish and Game Dept. has spent considerable time and effort determining the “average corridor of influence” for wildlife in our state. After extensive review of scientific literature they have determined the average “flight distance” for the following:

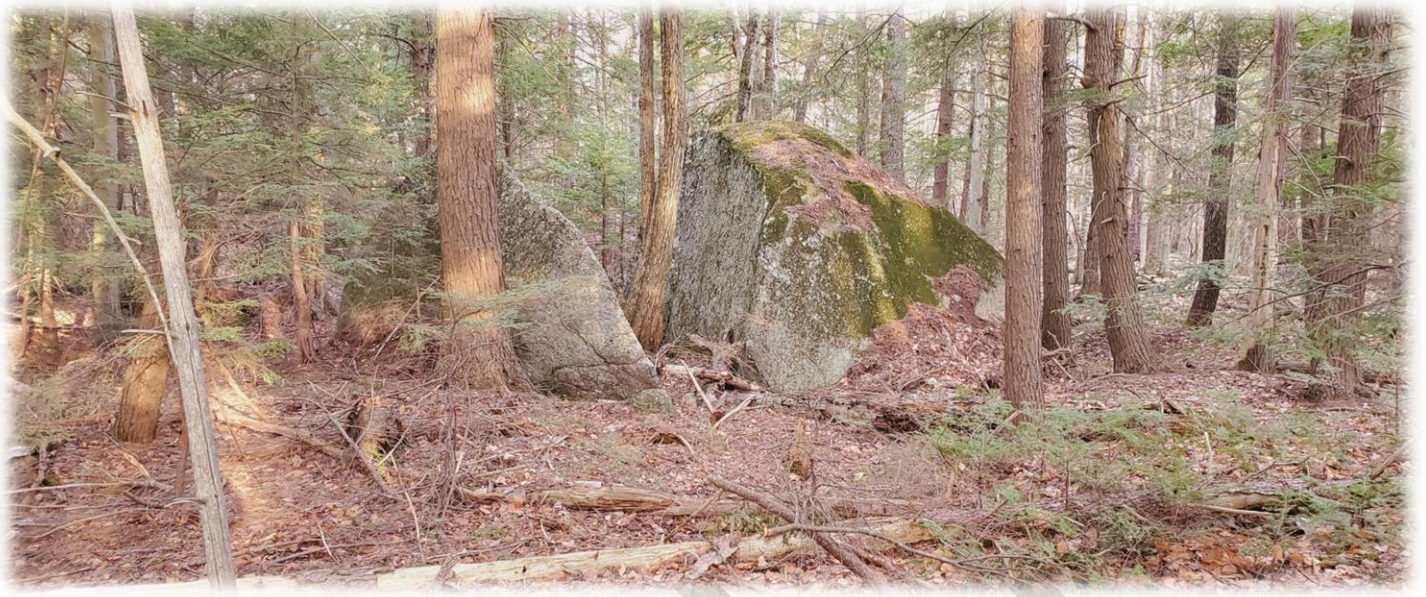
- Amphibians and reptiles is 60 feet;
- Birds become alert and frightened 150 feet on either side of a trail;
- Mammals become alert to human presence at an average distance of 400 feet.

CORRIDOR OF INFLUENCE - DISTANCE IN NH

In New Hampshire, a trail's corridor of influence on wildlife is about 400 feet in each direction. This distance is equivalent to one and a third football fields, or the length of nine school buses, on either side of the trail.



The “peninsula” lot has a lot of aesthetic and recreational appeal and has a fairly open understory. If this land were under public or protected ownership, it could host a couple of well placed “backcountry” campsites for paddlers (or groups like Kroka). Big trees among big rocks add to the visual delight.





This lot has the greatest appeal and potential for siting desirable house lots.

Mr. Wilson began buying these three lots back in the 1990's, so he could teach his children how to camp and fish; the Stoddard conservation commission wants to buy this property so the children of Stoddard will always have a place to call their own, where they too, can learn to camp and fish and understand the importance of conservation lands that surround their homes among the hills and lakes of Stoddard!

What Do Residents Say About the Conservation Lands? Notable Quotes

Here is a sampling of how residents regard the importance of the conservation lands of Stoddard:

- "I used to view land protection as a luxury; now I view it as a necessity" ~the late Marylou Eaton, town matriarch
- Pioneer Lake is "my happy place; it's where I go when I am having a bad day" ~ Stoddard resident
- "The conservation lands are my gyroscope: they help keep me grounded; they are my gymnasium; they keep me fit";
- "Projects like this help unite and galvanize a community."

- “I have long enjoyed and appreciated them from the offshore vantage point of my kayaks, canoes, and sailboat, but I never ventured inland. When I first embarked on this project, I had no idea of the outcome. The report kind of took on a life of its own, that I think it deserves. I had no idea of the value and quality of this resource. It would break my heart to see it get developed.....so that is the perspective I took: developing a report that could potentially become a tool for protecting it.” ~ Geoffrey Jones, forester/chair Stoddard con com.
- “I just finished my first review of your report. Your descriptions of the lands and your evaluation of the environmental importance of the Wilson tracts literally brought tears to my eyes (good tears). “ ~abutter Craig Walker

Educational Benefits & Opportunities

The town of Stoddard has a unique opportunity to share a national template on how communities can support local education through a national pandemic, by integrating outdoor nature based curriculum with initiatives to protect important tracts of land that have high conservation values.

It includes a well-built rustic cabin that could be readily renovated into a wonderful environmental outdoor classroom surrounded by 40 acres of forest as the living lab.

The property is readily accessible by foot or boat and is within a 5-minute drive from the school.

While the rest of the nation has been grappling with the challenging impacts of a prolonged pandemic; the Stoddard JFES elementary school decided to move all classes outdoors in 2020. A year later, a move that was supposed to be temporary for teachers like Amanda Bridges has now become a permanent fixture of learning here.

- "We're doing math and reading we're just doing it in a different environment," Principal Allison Peterson said.
- "They're so happy. They're so happy. It's incredible,"



- "They learn so much by being outside. They learn to take risks and learn what their limits are in a way they can't in the classroom," said teacher Mia Leonard-Solis.

- At a time when so many schools across the country are struggling to hit the “right notes’ (in dealing with COVID) this school has come up with a lesson plan for success in the great outdoors.
- For kids like Mirabella, who once needed specialized learning plans or breaks to move around, learning outside has been a literal breath of fresh air.
- "It’s so much easier to concentrate and focus here than it was in my other school," Mirabella said.

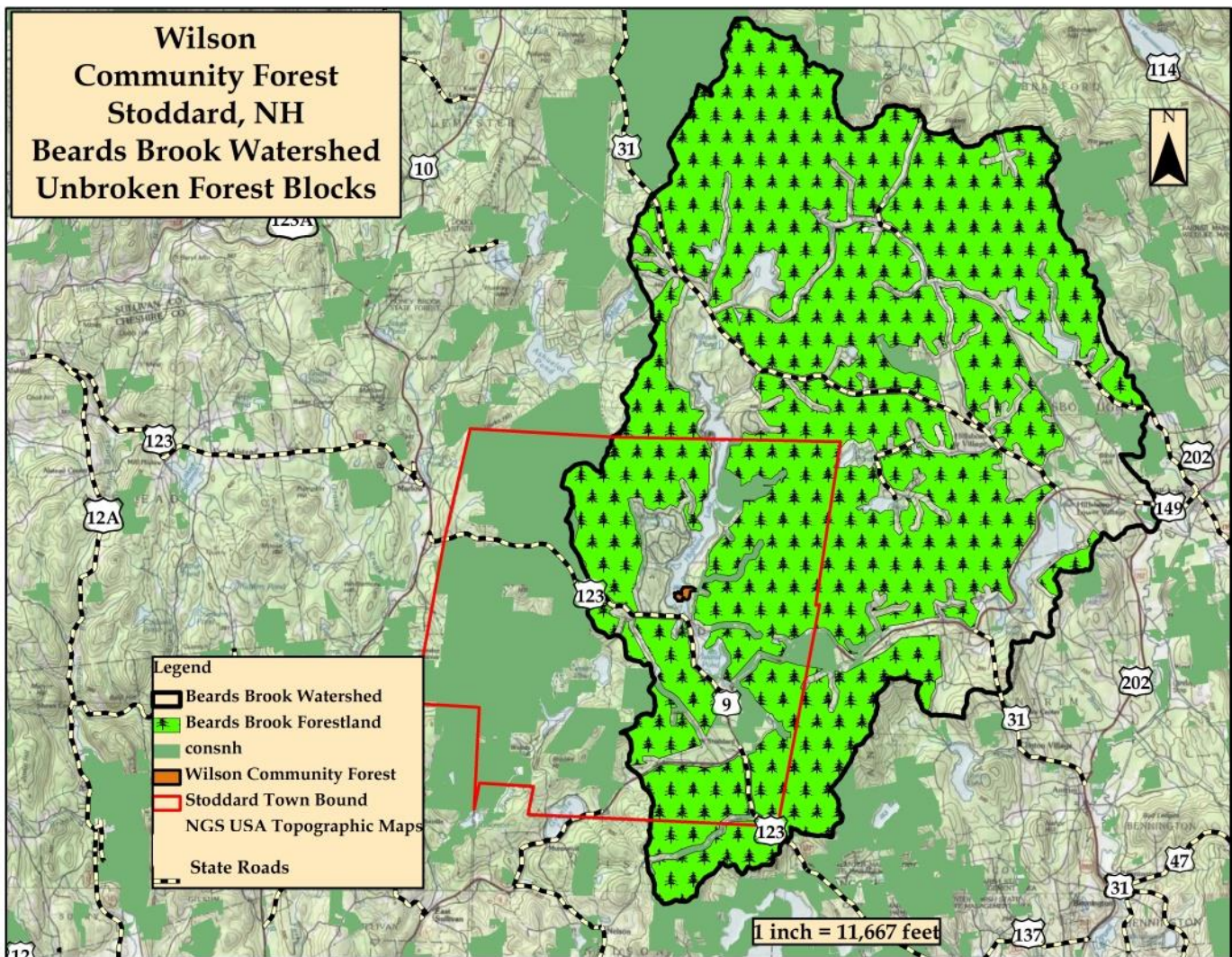
Adult education programs could easily be conducted from this property on a variety of natural resource issues including, but not limited to the following:

- Issues affecting Highland Lake;
- Importance of undeveloped shoreline in maintaining healthy aquatic ecosystems;
- Importance of conservation lands (65% of this town) and forever wild conservation easements (20% of the conservation lands or over 6,000 acres are in a forever wild designation.....extraordinary for the private sector to voluntarily provide);
- The value of old(er)-growth forests (on-site examples);
- The role of soil mycorrhizae in forest ecosystems;
- The role of predators in maintaining healthy forest ecosystems;
- Edible mushrooms;

Landscape Level Features

Unfragmented Forests

After the Civil War, farms in New Hampshire were abandoned in favor of more productive lands in the Midwest and West. For nearly a century, N.H. experienced a period of forest recovery that culminated in 87% of the state being forested; second only to the state of Maine. Today, however, the amount of forest cover has dropped to 77.6%!



In the fall of 2020, the University of New Hampshire, in collaboration with an independent forest researcher, completed a study that showed forests of N.H. are declining at an alarming and increasing rate. Using satellite imagery and a powerful geographic information system they analyzed geographic data from the past 22 years to estimate the loss of forest cover. Their findings show that the rate of forest loss has nearly doubled from 14% between 1996 and 2001 to 27% between 2010 and 2018. Between 1996 and 2018, N.H. has lost more than 238,000 acres: an average of more than 11,000 acres annually. This latest round of research shows that “we need to take intentional steps to protect New Hampshire’s remaining forests”. ~one of the researchers

Sixty-eight percent of the 4.6 million acres of forestland in NH are owned by private landowners⁵. Maintaining the integrity of forests is important for economic reasons, as forest products companies of NH produce \$2.2 billion annually, providing jobs in the timber and tourism industry⁶. Forests are important ecologically, because they filter our drinking water, absorb and store carbon dioxide in

⁵ The Economic Importance of New Hampshire’s Forest-Based Economy 2011, NH Division of Forest & Lands

⁶ Ibid.

vegetation AND the soil (sequestering this greenhouse gas), and provide habitat for plants and animals that form the web of biodiversity that all life depends upon. In particular, large unfragmented forest blocks of roadless, undeveloped land provides important habitat for many species of birds and mammals that live in the NH woods that depend on these large, unbroken forestlands. Fragmentation of these lands due to human activity fractures wilderness systems, wildlife corridors, natural communities and ecosystems, degrading their natural functions. It also destroys important "escape" habitat that wildlife seek, when other important habitat they use is fragmented or lost to development. Habitat loss due to fragmentation is one of the largest threats to biodiversity world-wide. Keeping them from further development is of paramount importance to the health and vigor of wildlife and people, as many of these species are indicators of ecosystem health, which we all depend upon.

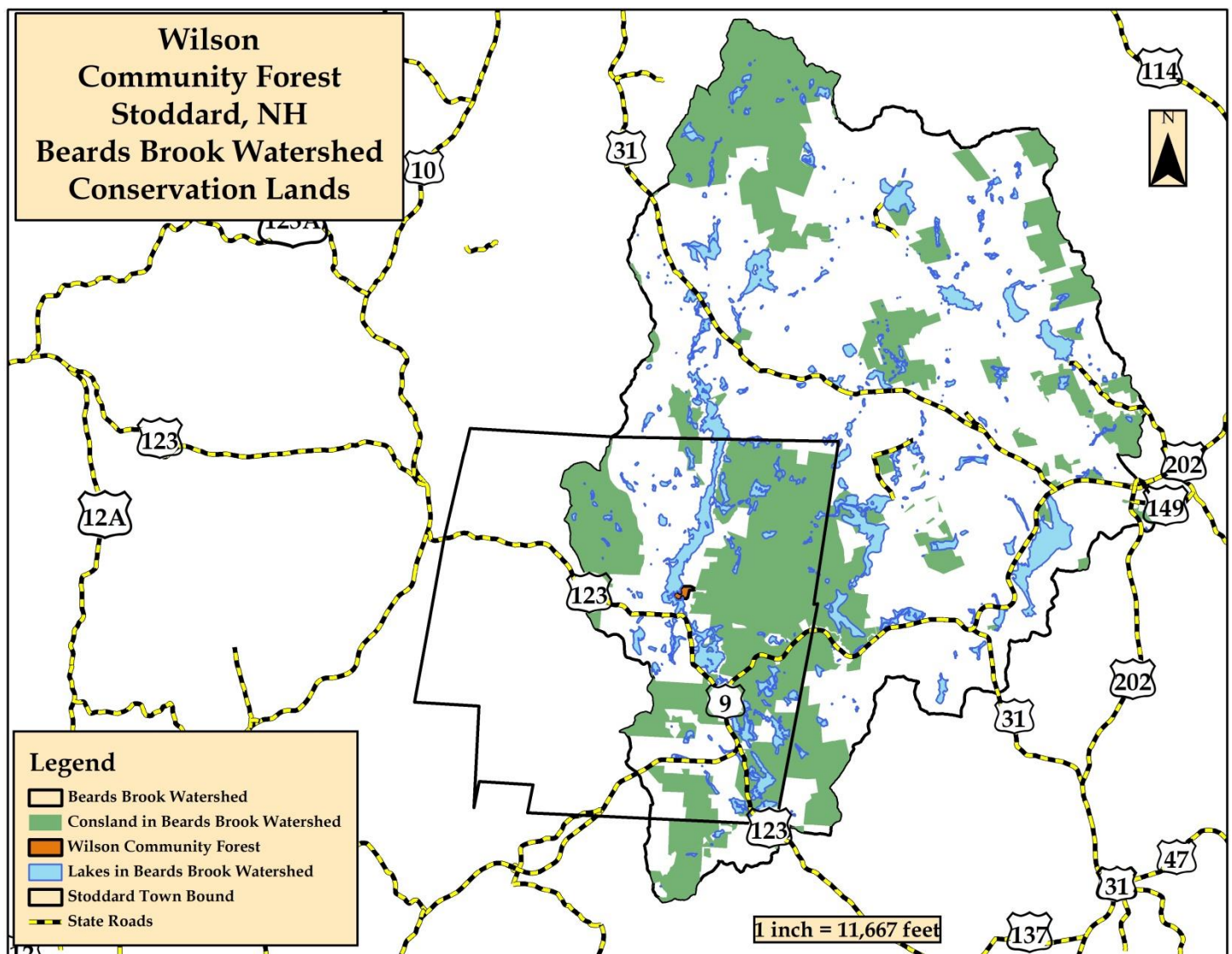
An "unfragmented forest block" is an area of forest that is not broken up by roads, development or water bodies. Forest blocks that are 500-acres in size are large enough to provide wildlife habitat for a variety of birds and mammals, protect water quality, and remain economically viable for forest management activities. Forest blocks that are 5,000 acres and greater enhance the ecological and economic value of forests. Large blocks of this size usually occur further north, primarily in the White Mountains and Coos County, however Cheshire County is well represented.

Conservation Lands

Conservation groups believe that at least 30% or more of forest and agricultural lands have to be permanently conserved to preserve their economic and ecological integrity. "A resilient forest is one that will continue to be a forest into the future". It is imperative that family forest and farm owners make formal plans to protect the future of their working lands!⁷

Collectively, these forested areas provide a great resource that contains abundant and diverse habitat for a wide range of wildlife and bird species; a great forest resource for local materials and jobs; a great recreational resource for people seeking a variety of outdoor activities.....and a great place to live and make a living off the land.

⁷ Catanzaro, Paul, et al, *Increasing Forest Resiliency for an Uncertain Future*, Hadley Printing, Holyoke, Mass., 2016 p.6



These unfragmented blocks, with protected lands embedded, provide important habitat and traveling corridors, connecting woodlands with lakes and wetlands that are used by a wide variety of song birds that require deep interior unbroken forest canopies, both game and non-game species. In particular, this region represents great habitat for turkey, grouse, snowshoe hare, coyotes, fox, deer, moose, fisher, bear and bobcat.

Conversion of forests to other land uses eliminates all the benefits that forests provide: in other words, **"no forests equal no forest benefits"**!

Invasive Plants and Insects

Endemic populations of native insects and pathogens are important in healthy forest ecosystems. However, introduced non-native exotics can cause excessive damage. Insects are prey species at the very bottom of the food chain. Along with other decay organisms, some insects transform dead and dying plant material (including trees) into nutrients that feed new plants. Insects and diseases

become problems when populations reach out-of-balance, epidemic levels. Tree-growth loss and mortality can occur and the economic impact can be severe.

The most devastating insect and disease outbreaks often occur when non-native pests are introduced into locations where they have no natural enemies. Diseases introduced in the past such as the Dutch elm disease, the chestnut blight, and the butternut canker has virtually eliminated their host species.

No invasive plants were identified on the property, however many pesky invasives are in the area. In particular, be on the alert for Japanese knotweed which is progressively invading the town along Rte. 123. Small populations are present near Island Pond off of Old Antrim Rd.

Insects of concern for Stoddard:

- Asian Long-horned beetle, found in Worcester, MA in August 2008, but hasn't been found in NH.....yet!! It can devastate hardwood trees and forests.
- Hemlock wooly adelgid was first discovered in Portsmouth, NH in 2000. This small, wingless insect uses its piercing mouth-parts to feed on small hemlock twigs. HWA, if left untreated, can kill a tree in 4 to 10 years. Untreated outbreaks of HWA weaken the tree and leave it susceptible to damage from other pests, such as elongate hemlock scale and hemlock borer. Maintaining trees in a healthy condition lessens damage by other pests. HWA populations can be found in more than half of the towns in New Hampshire and every county except Coös. This pest can be introduced into new areas by birds and other wildlife, and through human activities, such as the movement of infested nursery stock and forest products. It was found in Stoddard in 2020.
- Emerald Ash borer attacks white ash trees; they often die within 3-5 years. EAB has been found in Stoddard. Remain vigilant; seek advice from the UNH county forestry resource specialist.

For more information on damaging invasive insects and disease, go to: <https://nhbugs.org/>

For more information on damaging invasive plants, or to print out enlargements of the maps, go to: <https://extension.unh.edu/resource/invasive-plants>

Climate and the Role of The Forest (It's Resiliency)

New England forests have often been referred to as the "Resilient Yankee Forest", as they have a high tolerance and adaptability to change brought about by various disturbances. Most of the New England forests have been cleared twice and faced threats like the chestnut blight that removed this once dominant tree species from the landscape. Other stressors created by pests like the gypsy moth, Dutch elm disease, hurricanes, acid deposition, and the loss of many predators, have taken their toll on these forests, yet today they continue to define our regional landscape. Our forests now face another stressor: climate change. Understanding how stressors reduce a forests resiliency,

adaptability, and impair its ability to function properly will help to inform actions that can help them survive.

To quote directly from the Smithsonian magazine⁸: “If the goal is to minimize global warming, climate scientists often stress the importance of afforestation, or planting new forests, and reforestation, or regrowing forests. But there is a third approach to managing existing forests: proforestation, a term coined by climate scientist William Moomaw to describe the preservation of older existing forests. (Moomaw was a lead author of five major reports of the Intergovernmental Panel on Climate Change, which was awarded the Nobel Peace Prize in 2007.) All of these strategies have a role to play. But what Leverett has helped show in the last few years is how much more valuable proforestation is than we first thought. *He (Old-growth expert) Robert Leverett has provided hard data that older trees accumulate far more carbon later in their life cycles than many had realized: In studying individual Eastern white pines over the age of 150, Bob was able to determine that they accumulate 75 percent of their total carbon after 50 years of age – a pretty important finding when every year counts in our struggle to mitigate the effects of climate change. Simply planting new forests won’t do it.*”

The article continues to state: “A recent study Leverett co-authored with Moomaw and Susan Masino, a professor of applied science at Trinity College in Connecticut, found that individual Eastern white pines capture more carbon between 100 and 150 years of age than they do in their first 50 years. That study and others challenge the longstanding assumption that younger, faster-growing forests sequester more carbon than “mature” forests. The research bolsters the importance of proforestation as the simplest and most effective way to mitigate climate change through forests. Indeed, according to a 2017 study, if we simply left the world’s existing forests alone, by 2100 they’d have captured enough carbon to offset years’ worth of global fossil-fuel emissions – up to 120 billion metric tons.”

Keeping the WCF in a forever wild state may be the prudent course of action.

It is difficult to guess what challenges climate change may present landowners in the next 50-100 years. The best way to deal with uncertainty for potential extreme events is to manage a woodlot so that it has a capacity to deal with a wide range of potential future conditions. Here are some strategies and practices that will help:

- Adopt adaptation actions to address forest stressors that foresters are already dealing with like invasive species and insect pests;
- Be observant of changes in the forest and be creative in how you respond to the changes, using old and new tools to address environmental stressors that continue to change and intensify.
- We expect the most immediate and drastic effects in the places where changing climate conditions (e.g. longer growing season, warmer temperatures, shifting precipitation patterns) interact with existing stressors (e.g. invasive plants, exotic pests, overstocking, deer browse), so be vigilant and prepared;
- Double the size of road culverts; use a minimum of 30" on access roads;

⁸ <https://www.smithsonianmag.com/science/the-old-man-and-the-tree-180979242/>

- Vigorously practice and implement BMP's to prepare for larger and longer precipitation events;
- Maintain diversity in the forest, they have more resilience to disturbance, while low-diversity forests have fewer options to respond to change. Examples of forest diversity include diversity in: species, structural characteristics, and genetics.....all of which help reduce risk and increase adaptability;
- Maintain unbroken forest canopy along riparian areas, especially softwood cover.
- Stands managed for a high stocking of large diameter trees also have the highest carbon stores (manage for long rotations, where possible);
- Use thinnings to promote younger age classes that maintain higher rates of growth; promotes higher sequestration rates; and enhances structural and compositional complexity⁹.

Strategies to Brace for Climate Change:¹⁰

- Greenhouse gases increase the amount of CO₂ in the atmosphere which is a major contributor of climate change and results in increasing unpredictability in the patterns of large storms; increased precipitation and runoff causing increased erosion of beaches and shoreline. Qualities Wilson Point has to address these threats:
- Increase (or prevent further loss) the percentage of shore in native forest and shrubs;
- Protect this property in order to reduce the development potential (property listed as "multiple home" possibilities);
- Provide educational materials (and workshops) to lakefront property owners that demonstrate good lakeside stewardship.

Mechanism for Promoting & Public Participation

There will be multiple opportunities for members of the community to participate in the planning of the future use of this forest. An email contact list "Friends of Wilson Point" has been established. Currently 35 people have expressed an interest to be included so that they can receive periodic updates. Anyone in town or any seasonal camp owner who wishes to be included, will. From the Friends group, several committees have resulted that include a growing list of committees: Steering Committee; Grant Writing Committee; Finance and Fundraising Committee; Public Outreach Committee; Stewardship Committee. The Steering Committee and Grant Writing Committee are firmly established; volunteers are being recruited for the other committees. The purpose of each committee is as follows:

Steering Committee:

Consists of 12 people: The purpose and role of the committee is to provide oversight and feedback as the project advances;

⁹ D'Amato, Antony, et al, "Forest management for mitigation and adaptation to climate change: Insights from long-term silvicultural experiments", Forest Ecology Management 262 (2011) 803-816. pp 803, 814-815.

¹⁰ Source: NH Wildlife Action Plan

Grant Writing Committee:

Consists of 8 individuals: with varying levels of expertise and level of involvement. Their primary function is to identify large grant opportunities and to write the applications for the grants;

Fundraising Committee:

Consists of 2 people: including the treasurer for the conservation commission (we are searching for more). Their function is to develop a strategy and to identify Foundations and private donors who have a history of supporting land protection in the area and to reach out to individuals in the community. A **GoFundMe page** has been developed and will be activated when the public campaign is announced. The conservation commission has received the necessary documentation from the IRS that enables the town to receive tax-deductible donations. The town has a number DUN number to enable the receipt of federal funds. When donations are received a letter of acknowledgement and appreciation will be sent, including an IRS statement regarding tax deductible gifts.

The following summary identifies anticipated expenses and revenues. Keep in mind these projects are dynamic and constantly updated:

Estimated Project Cost				
Cost Classification	Total Cost	CFP Cost (Federal)	Other Federal Cost	Non-Federal Cost
1) Land Cost	\$ 1,300,000			
2) Yellow Book Appraisal-Marsha Beecy (\$4,500); Review appraisal (Estimate of \$3,500 to be determined)	\$ 8,000			
3) Attorney/Title Fees/Title Insurance	\$ 5,000			
4) Boundary Survey-Steve Perron LLS #843	\$ 5,000			\$ 5,000
5) Community Forest Plan Development-Lead author Geoffrey Jones LPF #151/TSP-10-6525	\$ 5,000			\$ 5,000
6) Misc. Real Estate Costs	\$ 1,000			
Subtotal	\$ 1,324,000			
Stewardship Costs (to be determined)				
7)Contingencies Fees	\$ 20,000			
Subtotal	\$ 20,000			
Total Project Cost	\$ 1,344,000			
Explanation of Costs: 1) Purchase price not to exceed \$1.3 million dollars (based on an appraisal with options specified in Option Agreement); 2) Quote given by appraiser Marsha Beecy (Yellow book qualified) scheduled for spring/summer 2022; review appraisal to be determined; 3) Attorney fees for Option Agreement (\$1,500+/-); town attorney review (\$500), title search; miscellaneous expenses); 4) Quote given by S.S. Person scheduled for spring 2022; 5) Cost includes a comprehensive field inventory, series of GIS property specific and landscape level mapping; a narrative that meets Natural Resource Conservation Service (NRCS) management plan standards and CFP criteria (community planning/input)-lead author is Stoddard conservation commission chair who is a NH licensed professional forester #151/TSP provider #10-6525; 6) Miscellaneous Real Estate Costs-to be determined; 7) Contingency fund for unexpected costs.				

Funding Sources for Wilson 40-acre Forest, Stoddard, NH				
<i>Funding Source</i>	<i>Federal</i>	<i>Non-Federal</i>	<i>Total</i>	<i>Notification Date</i>
1) USFS Community Forest Program	\$ 600,000		\$ 600,000	Jun-22
2) NH Land & Community Heritage Investment Program (LCHIP)		\$ 500,000	\$ 500,000	Nov-22
3) Eversource Foundation			\$ 250,000	Can't Apply until Signed OA
4) NH DES Aquatic Resource Mitigation Program (ARM)		\$ 10,000	\$ 10,000	To be determined
5) NH Conservation Committee Mooseplate Program		\$ 30,000	\$ 30,000	To be determined
6) Corporations (C & S Grocers); Lake residents with businesses		\$ 100,000	\$ 100,000	Can't Apply until Signed OA
7) Private Individuals		\$ 100,000	\$ 100,000	Monthly Updates
8) Foundations (Putnam, NHCF-Lesser Fund)		\$ 15,000	\$ 15,000	Can't Apply until Signed OA
9) Stoddard Con Com Conservation Fund	\$ 19,000		\$ 19,000	
10) Other (Need a signed OA before exploring)				
Total Estimated Revenue	\$ 619,000	\$ 755,000	\$ 1,624,000	

Explanation of Cost-Share: 1) CFP: apply for max. amount on Jan. 10, 2022; 2) LCHIP apply for max amount when grant applications are available in April/May of 2022; 3) Eversource personnel will arrange a meeting with NH CEO Doug Foley once we have a sign OPTION AGREEMENT; 4) ARM apply for the max amount when grant pre-proposal applications are available in April 2022; 5) NH Mooseplate Grant will apply for the FY 2023 round in July 2022; 6) We have a number of leads on corporations including: C & S Grocers, Putnam Foundation, PC Connection (BUT need signed OA before we approach); 7) Estimate of 500+ people donating an average of \$200/donation (there are over 1,000 people who belong to a Highland Lake FB group); 8) Once we have a signed Option Agreement, we will invest time looking for other sources; 9) At Town Meeting in May of 2021 we had \$17,000+ in the conservation fund. **In TWO WEEKS OF SEMI-FORMAL FUNDRAISING, WE HAVE RECEIVED \$23,850 FROM 18 DONORS**

Private donations are critical to our successful fundraising. In addition to raising important revenue, a robust local fundraising effort is taking into consideration when public agencies award funding levels for grants that are very competitive. The more the town is able to raise from private contributions, the more likely we will achieve our grant requests.

Public Outreach Committee:

Has yet to be filled. Their primary function is to develop brochures, posters, social media posts, fundraising letters targeting various audiences, and to develop thank you cards;

Stewardship Committee:

Has yet to be filled. The primary function: to help identify public use policy that is compatible with the two primary functions of ownership: protect the ecological integrity and function of the property; and provide a physical meeting place for educational programs that benefit the children and residents of this town. This committee would be involved in the planning process for improvements to the existing building and any site improvements deemed necessary or desirable (parking lots, utilities, plumbing, siting remote campsites, siting ropes course, etc.)

Groups Offering Letters of Support (see addendum):

- Board of Selectmen
- JFES elementary school
- JFES School Board
- Davis Library
- Stoddard Historical Society
- Lake Associations (HLUA, Island Pond Assn.)
- Eva Lane Association
- UNH Cooperative Extension
- Forest Ecologist Tom Wessels
- Peter Jensen, Creating Trail Experience (Accessible Trail Network)

Plans for Utilization of the Building

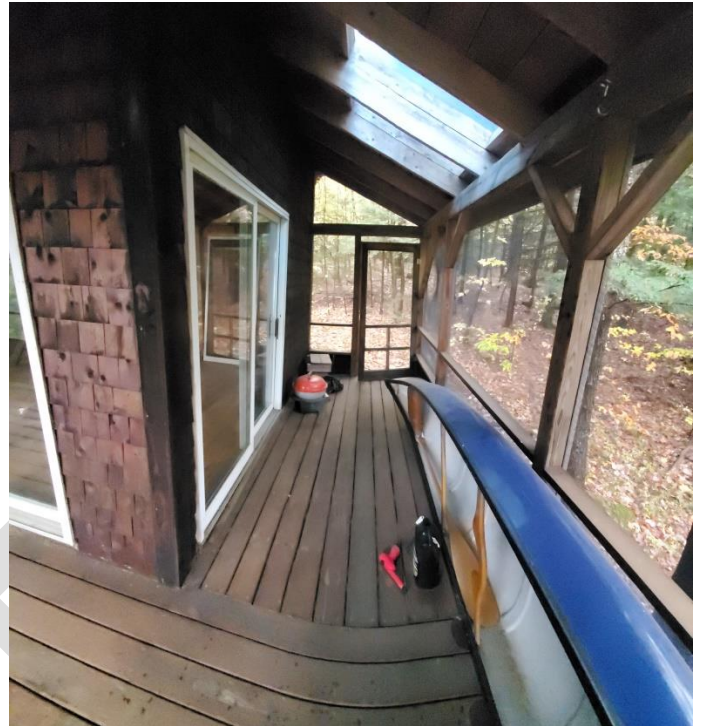
A rustic, well-built cabin lies in the northwest corner of lot M121 L1 that has an outside of 20-feet x 26-feet. One enclosed, first floor unfinished room has a dimension of 11-feet x 20-feet; contains a small Jötul wood stove and a small loft. Sliding glass doors are present, including a wall of windows lakeside. An enclosed lakeside porch with has the dimensions of 8-feet by 25-feet, with a side porch access of 5-feet x 10-feet.



The Stoddard James Faulkner Elementary School is very interested in the building and site as an affordable/accessible property to expand their robust and established outdoor curriculum. As soon as circumstances allow, a site visit will be conducted to see what improvements would be needed to make the building suitable for the 5th grade students (for starters). Any immediate repairs would be sought by volunteers and donations. Immediate needs would be supplied by portable toilets; imported water; and battery operated lights



A community facilitated discussion and collaboration with a building/stewardship committee would identify future needs/desires and funding.



Plans for Utilization/Removal of Cabin on Wilson Land Community Forest		
<u>Date</u>	<u>Practice</u>	<u>Comments</u>
1/22-2/24	Schedule site visits with JFES, School Board, BOS, other interested groups (Kroka, schools in neighboring towns; colleges in Keene	Identify uses for the building; desired improvements or expansion; desired ammentities (electric utilities; indoor plumbing; septic); Compatible outdoor activities (primitive campsite for organized groups only; ropes course; geocaches)
2022-24	Once desired uses have been identified, develop building plans; develop a budget, determine whether work would be through volunteers or professional contractors; obtain bids for work	There are several unknowns with the process because it is in its incipient stages. As the project advances, many of these unknowns will be flushed out.
2022-23	Site visits for Stakeholders	Give school and school board, other groups like Kroka, elementary schools in neighboring towns, KSC/ Antioch/KHS staff the opportunity to visit the site, hear the vision and gauge their level of interest and participation.
2022	Create Stewardship Committee	Such committee could be a subcommittee of the conservation commission, staffed with a variety of individuals including educators, builders/contractors, natural resource professionals, artists and elected officials. Their purpose: to help identify appropriate uses and stewardship activities to guide and implement them

Implementation Strategies

Implementation Strategies for Wilson Land Community Forest		
Date	Practice	Comments
1/22-2/24	Fundraising	Major grants will be applied for and notice of success will occur in 2022; private donations, foundations and corporate donations will occur Jan. 2022 through February 2024....or until fundraising goal is achieved
2022-23	Public Information and Listening Sessions	Once an Option Agreement has been assigned, a public announcement/hearing will be held with invitations to all interested parties and the general public; Information/fundraising events will be scheduled for various groups (JFES staff/ school board; Davis Library and friends; all Stoddard boards and committees; Road Associations (of which there are several); Lake Associations (so summer residents can weigh in/become aware); businesses (whose owners have cottages on the lake); other groups/etc. as identified
2022-23	Site visits for Stakeholders	Give school and school board, other groups like Kroka, elementary schools in neighboring towns, KSC/ Antioch/ KHS staff the opportunity to visit the site, hear the vision and gauge their level of interest and participation.
2022	Create Stewardship/Building Committee	Such committee could be a subcommittee of the conservation commission, staffed with a variety of individuals including educators, builders/contractors, natural resource professionals, artists and elected officials. Their purpose: to help identify appropriate uses and stewardship activities to guide and implement them

Planned Public Access

Pending public input uses to consider:

- Only foot traffic?
- Gated access?
- Motorized v. non-motorized use
- Wheeled vehicle use (motorized v. non-motorized)

- Boating access
- Fishing access
- Swimming access
- Camping (groups by reservation only??); other?
- ADA built to USFS Trail Accessibility Standards
- Other

Long-Term Use and Management of Property

Pending public input

Stewardship Budget

Pending public input.

Timeline

Recommended Stewardship Activities

Bibliography

The Economic Importance of New Hampshire's Forest-Based Economy 2011, NH Division of Forest & Lands

Catanzaro, Paul, et al, Increasing Forest Resiliency for an Uncertain Future, Hadley Printing, Holyoke, Mass., 2016 p.6

Kiers, Toby & Sheldrake Merlin; "A powerful and underappreciated ally in the climate crisis? Fungi. The Guardian. November 30, 2021.

<https://www.theguardian.com/commentisfree/2021/nov/30/fungi-climate-crisis-ally>

NH Cooperative Extension Fact Sheet on "Shorelines"

D'Amato, Antony, et al, "Forest management for mitigation and adaptation to climate change: Insights from long-term silvicultural experiments", Forest Ecology Management 262 (2011) 803-816. pp 803, 814-815.

NHNHB Data Check for Threatened & Endangered Species



New Hampshire Natural Heritage Bureau

DNCR - Division of Forests & Lands
172 Pembroke Road, Concord, NH 03301
Phone: (603) 271-2214 Fax: (603) 271-6488

To: Geoffrey T. Jones
Loveland Forestry
PO Box 336
Stoddard, NH, 03464

From: NH Natural Heritage Bureau

Date: 2022-01-03

Re: Review by NH Natural Heritage Bureau of request dated 2021-12-23

NHB File ID: 3820

Town: Stoddard, NH

Project type: Landowner Request

Location: M121-L1; M125 Lots 20-21; Steve K. Wilson Property

We have searched our database for records of rare species and exemplary natural communities on the property(s) identified in your request. Our database includes known records for species officially listed as Threatened or Endangered by either the state of New Hampshire or the federal government, as well as species and natural communities judged by experts to be at risk in New Hampshire but not yet formally listed.

NHB records on the property(s): **None**

NHB records within one mile of the property(s):

Plant Species	Last Reported	Listing Status		Conservation Rank	
		Federal	NH	Global	State
common mare's-tail - <i>Hippuris vulgaris</i>	2019	--	T	G5	S2

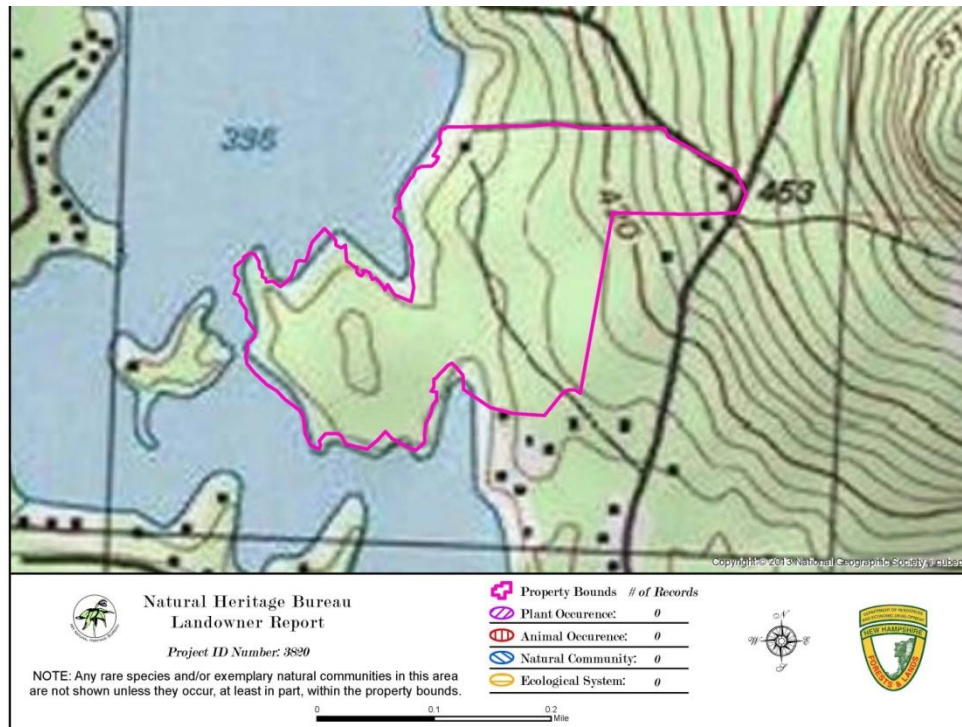
Listing codes: T = Threatened, E = Endangered, SC = Special Concern

Rank prefix: G = Global, S = State, T = Global or state rank for a sub-species or variety (taxon)

Rank suffix: 1-5 = Most (1) to least (5) imperiled. "--", U, NR = Not ranked, B = Breeding population, N = Non-breeding, H = Historical, X = Extirpated.

A negative result (no record in our database) does not mean that no rare species are present. Our data can only tell you of known occurrences, based on information gathered by qualified biologists and reported to our office. However, many areas have never been surveyed, or have only been surveyed for certain species. An on-site survey would provide better information on what species and communities are indeed present.

NOTE: This review *cannot* be used to satisfy a permit or other regulatory requirement to check for rare species or habitats that could be affected by a proposed project, since it provides detailed information only for records actually on the property.



Appendix

Glossary

Access road: A temporary or permanent route into forest land for over-the-road vehicles.

Advanced regeneration: Young age classes that have become established naturally without the influence of harvesting.

Age class: Intervals of tree age used to describe stand characteristics, e.g., 10- or 20-year age class.

Basal area: A measure of tree density determined by estimating the total cross-sectional area of all trees measured at breast height (4.5 feet) and expressed in square feet per acre.

Beaver flowage: Flat water behind a beaver dam.

Best management practices (BMPs): As used in this book – a practice or combination of practices determined by the State to be the most effective and practicable means of controlling point and non-point pollution at acceptable levels. These guidelines, some of which are incorporated into law, are found in *Best Management Practices for Erosion Control on Timber Harvesting Operations in New Hampshire*, published by the N.H. Dept. of Resources and Economic Development, Division of Forests and Lands.

Biodiversity: The variety and variability of all living organisms.

Biomass: The living or dead weight of organic matter in a tree, stand, or forest. Or as it relates to harvesting: The wood products obtained (usually) from in-woods chipping of all or some of portion of trees including limbs, tops, and un-merchantable stems, usually for energy production.

Boreal: Pertaining to northern latitudes. A climate zone with short, warm summers and snowy winters.

Borrow pit: The area from which gravel is removed to build up a roadbed.

Browse: Leaves, buds and woody stems used as food by woodland mammals such as deer and moose.

Bucking: Cutting a felled tree into segments.

Butt: The base of a tree, the large end of a log. A butt log is the first log cut above the stump.

Cambium: Layer of living cells between the bark and the wood.

Canopy: The more or less continuous cover of branches and foliage formed by the crowns of adjacent trees and other woody growth.

Calcareous: Soil or rock containing calcite (calcium carbonate). Calcareous soils generally have pH's around 6.0 or 7.0.

Cavity trees: Trees, either alive or dead, which contain hollowed out areas. Used as shelter for a variety of animal species.

Cellulose: A principle chemical constituent of wood cells.

Chain: A unit of length equal to 66 feet.

Clear-cutting: See even-aged management.

Co-dominant (crown class): A tree whose crown helps form the general level of the main canopy and whose crown receives full light from above and little from the sides.

Coppice: The production of new stems from stump or roots. A plant derived by coppicing.

Corduroy: Poles, logs or brush laid perpendicular to the direction of travel and used as a roadbed to cross a wet area, where there isn't a defined stream channel.

Crop tree: A tree retained for maximum longevity due to desired characteristics such as commercial quality or biotic contribution.

Crop tree release or crop tree management: A thinning technique where (usually) high-quality trees with vigorous crowns are identified as crop trees and competing trees are cut to release the crown of the crop trees.

Crown: The part of the tree or woody plant bearing live branches.

Crown closure: The percent of the stand canopy overlying the forest floor.

Cutting cycle: The interval between harvesting operations when uneven-aged methods are employed using group or single-tree selection. Sometimes called "entry period."

DBH: (diameter at breast height) The average diameter of a standing tree, measured outside the bark at a point 4.5 feet above the ground.

Diameter class: Intervals of tree size (often 1 or 2 inches) used to describe stand characteristics, e.g., 10" or 12" diameter class.

Diameter-limit cutting: Harvesting practice in which only trees above a designated diameter are cut.

Disturbance: Any relatively discrete event that changes the make-up of a stand, community, or ecosystem. Natural disturbances include windstorms, insect outbreaks, or fire. Human disturbances include harvesting.

Dominant (crown class): A tree whose crown extends above the general level of the main canopy and whose crown receives full light from above and partial light from the sides.

Ecosystem: A community of species (or group of communities) and its physical environment, including atmosphere, soil, sunlight and water.

Ecosystem integrity: The ability of an ecosystem to continue to function over the long term without the loss of biological diversity or productive capacity. The ecological integrity of an area is maintained when the following conditions are met:

1. All community types and successional stages are represented across their natural range of variation.
2. Viable populations of all native species are maintained.
3. Ecological and evolutionary processes such as disturbance, nutrient cycling, and predation, are maintained.
4. The biological diversity in the area can respond naturally to change.

Early successional habitat: Young, regenerating forest and shrubby areas used by animals requiring the thick cover the vegetation provides. The seedling-sapling stage of the early successional type of aspen-birch differs vegetatively and structurally from the "young forest" seedling-sapling stage of other types, and these differences result in different benefits to wildlife.

Edge: A transition between two (or more) relatively distinct habitat types, stands, or vegetation types. Edges are often described as being either "hard" or "soft." Hard edge describes a very abrupt transition between one habitat with short vegetation (e.g., field or recent clear-cut) and another with a tall, vertical wall of live trees that grow right up to the edge of the short vegetation. Soft edge describes a more gradual transition between habitats with different vegetation heights, such as occurs where a field with short grass, transitions into a slightly taller shrub border, which transitions into a stand of taller trees.

Endemic: A population of potentially injurious plants or animals that persist at low levels. Also can mean native to a particular area.

Entry period: The interval between harvesting operations. When uneven-aged methods are employed using group or single-tree selection, also called "cutting cycle."

Ephemeral: Existing for a short time; short-lived.

Epicormic sprouting: Small branches occurring on the stem and branches of some tree species in response to increased light, often from thinning or removal of substantial portions of the tree crown.

Even-aged management: A management system that results in the creation of stands in which trees of essentially the same age grow together. Regeneration in a particular stand is obtained during a short period of time at or near the time that a stand has reached the desired age or size for regeneration and is harvested. Cutting methods producing even-aged stands include (1) clear cutting; (2) patch clearing; (3) strip clear-cutting; (4) shelterwood; and (5) seed tree.

1. Clear-cutting: an even-aged cutting method whereby most or all trees within a given area are removed in one cutting, which leads to the establishment of an even-aged forest or stand.

Reproduction of the new stand, either artificial or natural, occurs after cutting. Modifications of the clear-cutting method include patch clear-cutting and strip clear-cutting.

2. Patch clear-cutting: a modification of the clear-cutting method where the area being treated is removed in a series of clear cuts made in patches. Often employed to regenerate even-aged stands which can't be reproduced by natural seeding if all trees are removed in a single cutting.

3. Strip clear-cutting: a modification of the clear-cutting method where the area being treated is removed in a series of clear cuts made in strips. Trees on the uncut strips furnish all or part of the seed for stocking the cut strips and protect the cutover area and the new crop. The width of the

cut strips depends on the distance of effective seed dispersal, usually not exceeding 5 times the height of surrounding trees.

4. Shelterwood: a series of two or three harvests that gradually open the stand and stimulate natural reproduction of a new even-aged stand.

5. Seed tree method: an even-aged cutting method that removes most of the trees in one cutting except for a small number of trees left singly or in small groups to serve as a seed source for establishing regeneration.

Even-aged stand: All trees are the same age or at least of the same age class. A stand is considered even-aged if the difference in age between the oldest and the youngest trees doesn't exceed 20 percent of the length of the rotation. From an ecological viewpoint, the minimum size of an even-aged stand could be considered as the size of the largest opening entirely under the influence of adjacent mature timber. The opening of critical size might be that which, at the very center, exhibited the same temperature regime as any larger opening. Such an opening is probably about twice as wide as the height of mature trees.

Exemplary natural communities: Include (1) all viable occurrences of rare natural community types, and (2) higher-quality examples of more common communities.

Financial maturity: The rotation at which the current value growth rate of the stand equals the alternative rate of return. One indication of whether or not to harvest.

Fir waves: Linear patches of blowdown or standing dead trees oriented perpendicular to the prevailing wind and arranged in a progression of waves of different ages of resulting regeneration adjacent to one another.

Fledge: The stage in a young bird's life when it has acquired its adult feathers and is able to fly.

Forb: An herbaceous plant other than grass.

Ford: A structure built for crossing a stream.

Forester: A person trained in the science of developing, caring for, and cultivating forests.

Forest management: The application of business methods and technical forestry principles to a forest property to produce desired values, resource uses, products, or services (see forest sustainability).

Forest type: A natural group or association of different species of trees which commonly occur together over a large area. Forest types are defined and named after one or more dominant species of trees in the type.

Forest sustainability: The capacity of a forest to produce the goods we desire today without compromising the productive capability and biological integrity on which future generations will depend.

Free-to-grow: A tree, often a seedling or small tree, free from direct competition for light, water or nutrients from other plants

Girdling: More or less continuous incisions around a living stem, through both the bark and the cambium with the intent to kill the tree.

Group selection: See uneven-aged management.

High grading: An exploitive logging practice that removes only the best, most accessible and marketable trees in the stand.

Hydrology: The properties, distribution, and circulation of water on the surface of the land, in the soil and underlying rocks, and in the atmosphere.

Integrated resource management: The simultaneous consideration of various disciplines to balance competing demands on a natural system to maintain or enhance its health, diversity, and cultural and aesthetic value.

Intermediate (crown class): A tree whose crown extends into the lower portion of the main canopy and whose crown receives little direct sunlight from above and none from the sides.

Invasive: A non-native plant capable of moving aggressively into an area, monopolizing light, nutrients, water, and space to the detriment of native species. Various referred to as exotic, nonnative, alien, noxious, or non-indigenous weeds. Non-native insects are usually referred to as "exotic."

Landing: A place where trees and logs are gathered in or near a harvest site for further processing and transport. Also called log yard.

LTG--Leave to Grow:

Legacy tree: Usually mature, older tree left on-site after harvesting for biological, wildlife, spiritual, or aesthetic purposes.

Lignin: A complex polymer associated with cellulose and imparts rigidity to the cell.

Lopping: Cutting off branches, tops, and small trees after felling, into lengths that allow the resulting slash to lie close to the ground.

Merchantable: Trees or stands having the size, quality, and condition suitable for marketing. That portion of a tree suitable for sale.

Natural resource professional: Person by training, education or experience who has expertise in managing natural resources. May include foresters, wildlife biologists, loggers, wetland scientists, etc.

Natural community: Recurring assemblages (groups) of species found in particular physical environments.

Outwash: Soil mixed and deposited by glacial melt-water; sands and gravels.

Over-mature: Also called biological maturity. A tree or even-aged stand declining in vigor and health and reaching its natural life span. A tree or even-aged stand that has begun to lessen in commercial value because of size, age, decay, or other factors.

Overtop: When one tree (or shrub) is growing over another.

Overtopped (crown class): Also called suppressed. A tree whose crown is completely overtopped by the crown of its neighbors.

Overstocked: Too many trees in a stand (as compared to the optimum number) to achieve some management objective, usually improved growth rates or timber values.

Over-story: The upper-crown canopy of a forest, usually referring to the largest trees.

Patch clear-cutting: See even-aged management.

Patch retention: Keeping an area of relatively homogeneous vegetation that differs from the surrounding vegetation for an ecological or wildlife habitat purpose.

Perched culvert: A culvert with its downstream end above the water.

Pioneer: An early occupier of disturbed sites.

Plantation: A stand of trees that has been planted or direct-seeded.

Pole timber: A DBH size-class representing trees that are usually more than 4.0 inches DBH and less than 10.0 inches DBH.

Predation: The act of capturing and killing other animals for food.

Prune: To remove living or dead branches for improved timber value, aesthetics, or vigor.

Regeneration: The renewal of a stand of trees by either natural or artificial (planting or seeding) means.

Regeneration cut: A harvest intended to assist regeneration already present or establish new regeneration by manipulating light levels, seed source, and seedbed.

Release: Freeing the tops of young trees from undesirable, usually overtopping, competing vegetation. Also used to describe removing competing vegetation from the sides of crowns as when releasing a crop tree during a thinning.

Residual trees: Trees left to grow in the stand following a silvicultural treatment.

Residual stand: A stand composed of trees remaining after a harvest.

Residual stocking: The numbers of trees left after a harvest.

Revegetation: The re-establishment of vegetation on bare soil by natural or artificial (planting or seeding) means.

Rotation: The period between regeneration establishment and final harvest. The age at which a stand is considered ready for harvest. Used in even-aged systems.

RSA: Revised Statutes Annotated, the compilation of the laws of the State of New Hampshire.

Sapling: Trees more than 4.5 feet tall but less than 5.0 inches DBH.

Sawlog: A log considered suitable in size and quality for producing lumber.

Scarification: Loosening topsoil, or breaking up the soil, in preparation for regeneration by planting, direct seeding or natural seed-fall.

Seedlings: Trees that are less than 4.5 feet tall.

Seed tree method: See even-aged management.

Seep: A spot where groundwater oozes to the surface, forming a small pool.

Selection harvesting: Removing single, scattered individuals or small groups of trees at relatively short intervals, repeating indefinitely to encourage continuous regeneration and maintenance of an uneven-aged stand.

Shelterwood: See even-aged management.

Silviculture: The art and science of establishing and tending trees and forests.

Single tree selection: See uneven-aged management.

Site index: A measure of the relative productive capacity of an area based on tree height growth.

Site preparation: Removal of unwanted vegetation and other material as preparation for the planting or seeding of trees. Site preparation may include removal of slash and other debris, removal or control of competing vegetation, or exposure of bare soil.

Size class: Descriptive term defining the most common tree size in a stand, e.g., pole-timber or sawtimber stand.

Slash: The residue left on the ground after felling, lopping, storm, fire, girdling or poisoning. It includes nonmarketable portions of trees such as stumps, broken branches, dead trees and other debris left on the ground.

Snag: A dead or dying standing tree often left in place for wildlife.

Stand: A group of trees reasonably similar in age structure and species composition and growing on a site of sufficiently similar quality to be distinguishable from adjacent areas.

Stocking: An indication of the number of trees in a stand as compared to the optimum number of trees to achieve some management objective, usually improved growth rates or timber values.

Stream gradient: The grade (slope) of a stream. A measure of steepness.

Strip cut: See even-aged management.

Succession: The replacement of one plant community by another over time in the absence of disturbance.

Suppressed (crown class): Also called overtopped. A tree whose crown is completely overtopped by the crown of its neighbors.

Supracanopy trees: Super-dominant trees whose crowns protrude above the main crown canopy.

Sustainable forest management: See forest sustainability.

Sustained yield: An annual or periodic output of products from the forest that doesn't impair the productivity of the land, generally harvesting equal to growth.

Take (for animals): Capturing, killing, wounding, disturbing, harrying, and similar acts against wildlife. For threatened and endangered species, taking includes disturbances to active nests, dens or other shelter while it is being used for reproduction, raising of young, overwintering or other critical needs.

Take (for plants): To pick, collect, cut, transplant, uproot, dig, remove, damage, destroy, trample, kill, or otherwise disturb, or to attempt to engage in any such conduct.

Thin: To reduce the stand density primarily to improve growth, enhance tree health, or recover potential mortality.

Till: Unsorted and unstratified soil deposited by a glacier, consisting of clay, silt, sand, gravel, stones, and boulders in any proportion.

Timber: Wood, other than fuel-wood, potentially usable for lumber. Forest stands containing timber.

Timber stand improvement (TSI): Silvicultural activities that improve the composition, constitution, condition, and growth of a timber stand.

Tolerance: The capacity of a tree to become established and grow in the shade.

Under-stocked: Too few trees in a stand (as compared to the optimum number) to achieve some management objective, usually improved growth rates or timber values.

Understory: All vegetation growing under an over-story.

Unmerchantable: Trees or stands lacking the size, quality, and condition suitable for marketing. That portion of a tree unsuitable for sale.

Two-aged stand: A stand of trees that contains two well-defined age classes intermingled on the same area.

Uneven-aged management: The application of actions needed to maintain a continuous high-forest cover, recurring regeneration of desirable species, and the orderly growth and development of trees through a wide range of ages and sizes to provide a sustained yield of forest products. Cutting methods that develop and maintain uneven-aged stands include (1) single-tree selection; and (2) group selection.

1. Single-tree selection: removal of single, scattered individuals or exceedingly small groups of trees at relatively short intervals, repeated indefinitely, by encouraging continuous reproduction and maintaining an uneven-aged stand.

2. Group selection: periodic removal of trees in small groups, producing openings smaller than the minimum feasible acreage for a single stand under even-aged management. Aims to produce an uneven-aged stand with a mosaic of small and variable-sized age class groups. Differs from single-tree selection in that the predominant characteristics of the group rather than the individual stems are evaluated for treatment.

Uneven-aged stand: A stand of trees that contains at least three well-defined age classes intermingled on the same area.

Vascular plants: Plants having tissues that conduct (transport) water, minerals, and food throughout the plant's roots, stems and leaves.

Vernal pool: A temporary body of water that forms in shallow depressions or basins, lacks a permanently flowing outlet, supports vernal-pool indicator wildlife species (e.g., spotted salamanders, wood frogs, fairy shrimp) and holds water for at least 2 months after spring ice-out.

Viewshed: The landscape that can be seen from a viewpoint or along a road or trail.

Water bar: An excavated, shallow channel or raised barrier of soil or other material laid diagonally across the surface of a road or skid trail to lead water off the road and prevent soil erosion.

Windfirm: The ability of a tree's root system to withstand wind pressure and keep the tree upright.

Windrow: Slash, residue and debris raked into piled rows.

Wind-throw: Trees felled by wind. Also called blowdown or windfall.

Letters of Community Support



TOWN OF STODDARD

1450 ROUTE 123 NORTH

STODDARD, NEW HAMPSHIRE 03464

TEL.: 603-446-3326 FAX: 603-446-7770

Incorporated 1774

BOARD OF SELECTMEN

September 27, 2021

Stoddard Conservation Commission
1450 Rt. 123 N
Stoddard, NH 03466

Dear Commissioners,

Congratulations of the opportunity to purchase some significant waterfront property. The Town of Stoddard has long been an advocate of open space preservation. It is our understanding that the Conservation Commission will be raising funds to purchase approximately 40 acres of land that will foster public access to the forest and shoreland abutting Highland Lake. This is a unique opportunity to give area families and visitors more access to recreational opportunities, and to preserve precious natural area for our wildlife.

Our Master Plan highlights our municipal vision of "protecting the natural, historic and cultural resources" of our community. The area in consideration is a local of great old growth pine trees and is a corridor for wildlife that visit the shores. The shoreline area is home to ducks and other migratory waterfowl who utilize the rocky shoals as protection from boat traffic and predators. The site would also be conducive to a small park and primitive campsites.

The Selectmen applaud your efforts and offer our support in any capacity within our scope.

We wish you the best of luck in these endeavors.

Sincerely,

Robert Fee

Christopher Madden

Stephen McGerty

11/10/2021

To whom it may concern,

We are writing to express our full support of the Stoddard Conservation Commission's campaign to protect the pristine 40 acre, undeveloped, Steven Wilson Land on the southern end of Highland Lake. After reviewing Geoff Jones' "Walk Through " assessment and "History" reports, dozens of still photographs and incredible drone footage, there is no doubt in our minds as to the esteem of this treasure at the doorstep of our community. We feel it is a once in a lifetime opportunity for all citizens of Stoddard, to secure and safeguard this extraordinary resource, for the benefit of all citizens, especially the children, as well as its bountiful wildlife and endless ecological systems.

A few things that are unique and desirable about this 40 acre parcel is its evidence of old growth forest, its 4000 feet of undeveloped shoreline, and well-built rustic cabin. Although Stoddard comprises 63% conservation land and several bodies of water in town, many kids do not have the privilege to access these forests and waterways. The conservation of this land would open new opportunities and build equity by providing an avenue for all students of JFES to experience this unique forest habitat and diverse watershed in an environmental outdoor education setting with the terrain as its living lab. We have the uncommon opportunity to add this property to Stoddard's wild lands, forever protected for the children of Stoddard, who innately become the stewards of this land.

JFES has maintained an emphasis on outdoor education for over a decade by integrating things like a school garden program, bi-annual all school hikes, partnership with the Harris Center, collaboration with NH Fish and Game through the Trout in the Classroom project, and overnight wilderness canoe trips on Highland Lake with Kroka. These are all traditions that have held sound through the years because they have profound positive impacts on student health, growth, and learning. We also have a long-standing relationship with the Conservation Committee as we have partnered with them on several projects in the past. For example, in 2014 members of the Committee led an all school hike to Stoddard Rocks/Pioneer Lake, with the purpose of introducing the trails, lakes, streams and vernal pools as well as some old growth forest, cellar holes, glacial erratics, and a wide variety of habitats. This learning extended to the history of the property and town as we explored evidence of the 1941 Stoddard Marlow fire. Another example is the work done by Geoff Jones regarding GIS mapping with a large group of Upper Elementary students in 2015. Our interest in the Wilson Land directly correlates to and supports initiatives started years ago by former teachers, and it is our intent to cultivate our affiliation with the Committee.

We know first-hand the power Mother Nature has to ignite curiosity, provide meaning, and unlock the innate potential of every student by fostering intelligent, creative, systemic thinking, while encompassing diverse learning styles and abilities. These are the skills needed in the 21st century. It provides an inclusive setting where all students can feel connected and be successful. Outdoor learning encompasses a spectrum of curricular school activities and supports the study of more abstract topics. In most recent years we have expanded our focus in this area, and continue to develop and increase our outdoor learning spaces on campus with resounding support from the community and Stoddard Board of Selectmen. By preserving this

land, it would allow us to continue to enrich our curriculums through integrated, applied, purposeful project-based learning across all subject domains. It would provide us with accessibility to a rich and diverse environment and “base camp”, allowing us to launch more frequent daily trips outdoors. We thoroughly embrace the growing energy around the outdoor educational movement which has grown nationally since the onset of the Pandemic, and in fact have received local and national media coverage highlighting this progressive, effective, and comprehensive approach to learning.

Education should be a rich experiential journey of discovery, expression and mastery where all students and teachers learn and grow together. It is one of the most important investments a community can make in its future. It is a powerful agent of change, improves health and livelihoods, contributes to social stability and drives long-term economic growth. Above all it is our responsibility to ensure that every child gets the quality education they need to unlock their full potential and contribute to building a better world.

The acquisition of the Wilson property would provide JFES with the physical resources (a rustic classroom learning center surrounded by 40 acres of extraordinary forest) to expand our outdoor educational curriculum to a much higher level.

We support the Stoddard conservation commissions effort with enthusiasm and high hopes.

Sincerely,

Tina Marie Minard

Lower Elementary Teacher, JFES

Amanda Bridges

Upper Elementary Teacher, JFES

**Island Pond Association
Board of Directors
PO Box 478
Stoddard, NH 03464**

November 23, 2021

Dear Stoddard Conservation Commissioners,

It is with great enthusiasm that our board supports your intended purchase of the 40 acres of land off Walker Road. That is a large piece of land and waterfront still not developed on Highland Lake, so establishing it as an open space preserve is of huge benefit to the overall watershed. Since Island Pond depends on the water flow from Highland Lake we clearly have a vested interest in the control of development on both lakes. Also much of Stoddard is in some form of conservation and these 40 acres will add to the natural corridor for our abundant wildlife.

Our board thanks you for your efforts and wishes you the best in the fundraising process. Please keep us in the loop as to the progress you are making towards your goal. Stoddard is fortunate to have such a committed conservation committee!

Sincerely,
David Lesser, IPA President

Board members:
David Lesser, president
Bob O'Brien, vice-president
Donald Flemming, treasurer
Charlotte Lesser, secretary
Paula Flemming
Geoff Molina
Harriet Beckwith

Observations for the Wilson Property on Highland Lake in Stoddard, NH

Prepared by Tom Wessels

At the request of Geoff Jones, I walked the Wilson Property with him and two other members of the Stoddard Conservation Commission the morning of November 2, 2021. As soon as we entered this parcel from its southern border, it became clear that it was a parcel that had always been forested with evidence of a minor logging of red oak in its southeastern portion about 50 years earlier. It could be discerned that the parcel was never opened for agriculture due to the stump evidence left by that logging. There were a number of coppiced red oak stumps that showed evidence of being logged twice, once about 50 years ago based on the level of stump decay and then about 100 years before that, based on the coppiced stump diameters. The original oaks when cut were probably at least 60 years old, meaning that they germinated from acorns in the early 1800s, long before agricultural land in the region started to be abandoned.

As we continued into the forest all evidence of logging disappeared with the only visible evidence of disturbance being from blowdowns related microbursts and the 1938 Hurricane. This is not an old-growth forest, but it is a far older forest than is commonly seen in the region, with scattered old-growth trees. The most impressive being a large red maple with very coarse bark plates that I am guessing exceeds 250 years of age. The other attribute that was evident were its forest soils that were well developed and spongy due to the forest's age. Soils like these hold their nutrients tightly and add greatly to the local water quality of this section of the lake. Along with about 4,000 feet of undeveloped shoreline, this parcel is an important habitat for aquatic wildlife in this otherwise heavily developed shoreline.

As we continued to the northern portion of the property we came upon an old barbed wire fence line with evidence of trees along it that had low limb knobs indicating that north of the fence line was once open, most likely for pasture. Within this section of the property was a small lakeside cabin with water access.

One other feature of the property that is quite impressive are its large, tall, straight white pines. It is rare to see trees of this stature these days since they are so highly valued as timber. There was also no evidence of any invasive species during the walk.

Due to all these features the Wilson property is an impressive forest holding that I think is an important candidate for conservation. One that should remain unlogged to maintain its current attributes.

Tom Wessels
Terrestrial Ecologist
Professor Emeritus, Antioch University

**Highland Lake Unified Association
Board of Directors
P.O. Box
Stoddard, NH 03464**

November 29, 2021

To Whom it May Concern

On behalf of the Highland Lake Unified Association (HLUA), we are writing this letter in support of the proposed purchase of the Wilson Property located off of Walker Road in Stoddard, NH. It is in the HLUA opinion that this parcel of land and its associated waterfront would be very beneficial to remain as open space for the health of the surrounding environment and watershed. This property is a unique opportunity to continue Stoddard's commitment to conservation. The preservation of open space, as well as the environmental systems that this parcel contributes to, are of utmost importance to the Highland Lake ecosystem.

The HLUA appreciates the efforts by your group. We will continue to monitor the progress of this project.

Sincerely
HIGHLAND LAKE UNIFIED ASSOCIATION


Kenneth Lafferty
President



Peter S. Jensen & Associates, LLC

"Creating Trail Experiences"

P. O. Box 154

Washington, VT 05675

413.441.0204 work/mobile

www.trailbuilders.com

Jan 3, 2022

Mr. Geoffrey Jones,
Ms. Sabine Duran, Camino Verde Designs
PO Box 336
1 Old Antrim Road
Stoddard, NH 03464

RE: Trail assessment for potential land purchase Wilson Point, Stoddard, NH

Dear Geoff and Sabine,

Thank you for the opportunity to view the area you wish to see preserved and developed with an "all persons trail". The forest, habitat, setting, terrain, lack of disturbance, and location would be an ideal location for a trail accessible to all as well as an excellent opportunity for interpretation of the natural environment.

I base these comments on my background and experience in the development of sustainable pedestrian trails through natural environments. My firm, Peter S. Jensen & Associates, LLC, has been an established trail contracting business partnership since 2005. Previous to the LLC formation, a sole proprietorship existed for trail development which I established in 1988. Membership has been held since 2001 in the Professional Trailbuilders Association (PTBA), now with over 100 trail contracting businesses globally. Per the attached company resume, our work has ranged throughout the Northeastern US and has varied from simple hiking trails to trails accessible to all. Our goal is to build trail experiences for our clients as well as for the general public.

We have developed many trails in unique and sensitive environments such as wetlands and on properties where aesthetics are a high priority. Recent projects similar to your proposed project have been developed at Parsons Marsh in Lenox, MA - an accessible trail and boardwalk for the Berkshire Natural Resources Council. Other projects include All Persons Trails for MA Audubon in Natick, MA, Worcester, MA, Belmont, MA, Princeton, MA, and Lenox, MA. We have also completed projects for The Nature Conservancy in Rhode Island (a 3,200 foot black locust boardwalk), New York (hiking trail and fiberglass bridge), and NH (accessible trail to be completed in Spring 2022). Two of our signature projects are the trail systems at Crotched Mountain in Greenfield, NH and at John Dillion Park in Long Lake, NY, each about 2.5 miles long.

All of this work is a result of my participation in the US Access Board's Regulatory Negotiation Committee for Outdoor Developed Areas in the late 1990's. At the time, I was representing the Appalachian Trail Conservancy as one of 25 committee members. As a trail builder and planner I played a large role in shaping the guidelines for trails. I also consulted with the US Forest Service in assisting the agency with developing their trail accessibility guidelines in 2003. The federal trail standards, now part of the Architectural Barriers Act (ABA) were finally issued in late 2012 and now serve as the best practices for developing trails for all on non-Federal lands (Federal agencies are required to use the trail standards in the development of trails on federal lands).

Our firm's emphasis is on the development of sustainable trails which create access for all, minimizes trail maintenance, reduces long term impacts on the trail environment, and provide positive trail user experiences. We want to ensure that projects are well built which begins with excellent design. As trail builders we feel that we become better trail designers as we fully understand the components needed for the development of high quality trails.

Based on the tour of the property you provided, I see excellent opportunities for an "all persons trail" providing access to this parcel of land where large white pine, eastern hemlock, and various hardwoods reside. Given the terrain, developing a trail which meets the US Forest Service Trail Accessibility Guidelines (FSTAG) is possible. Careful routing would avoid wetter sections and provide access to the natural features on the property creating a restorative experience for trail users. Educational benefits abound as well.

Conceptually, the beginning of the trail would be at the bottom of the existing wood road (to be the access road to the property) where parking could be provided for those needing it. Some form of a loop trail would be possible given the shape of the parcel and terrain. Short spurs off of the main trail (likely 5 to 6 feet wide) could provide access to more sensitive elements as well as help provide a more remote experience with those features. Due to the soil conditions, sections of the trail would be elevated boardwalk to bridge over sensitive wet sections but could also be used in other locations to protect tree root and mycelium systems in the vicinity of the impressively large trees. The concept of mycelium "bridges" could be introduced here to ensure the connectivity of this important species from one side of the trail to the other. Educational opportunities surrounding mycelium should also be encouraged. Several viewing platforms could provide designated access to various lake vistas thus protecting the shoreline in those locations.

Group use by local schools could be contemplated and this use would need to be considered in the overall design and layout when that phase of the project begins. Parts of the planning process would need to address the desires and impacts of groups. There are other group uses on Highland Lake which could benefit from trail development on this property as well as educational day excursions, by water. Groups traveling to the property will need access for larger vehicles which could be accommodated in the vicinity of the existing cabin near the northwesterly shoreline.

In general, the alignment of a trail would occur on higher ground with slight side slopes, undulate across the landscape so that storm water would naturally drain off the trail treadway and connect desired features which create the unique trail experience. Implementation of this type of trail will entail assessment of the features on the property, identifying the opportunities and constraints,

linking different natural features and vegetative types, and considering the social factors associated with the different user groups. Conceptual trail alignments would need to be refined until the desired alignment is identified. At that point, detailed layout could occur where tread grade would be considered as well as type of tread surface (compacted gravel, wood decking, composite decking, etc.). The other Federal trail standards would also be taken into consideration.

Each trail has its unique cost structure due to different widths, lengths, number and type of structures (bridges, boardwalks, stone cribbing/retaining, drainage structures, etc.), distance from materials, access, and labor/equipment needs. If a trail with a length of half a mile were to be constructed with several small bridges, several hundred feet of boardwalk, a viewing platform or two, a number of benches installed, and interpretive signage the cost could range from \$275,000 to \$450,000. The cost logically increases with more structures due to the associated material costs. Typically costs can be estimated once an alignment is determined and a trail construction log is completed. This will identify the quantities of materials needed. Labor sources will also have an influence on the project cost. Contracted workers, volunteer workers, organization staff workers, or some combination are possible methods of implementing trail projects.

I look forward to assisting you with this project in a planning/design capacity or as a planner/designer/builder. Most of the 30 plus year of trail contracting my firm has done has been design/build.

If you have any questions regarding the above information, please let me know.

Sincerely,



Peter S. Jensen
Trail Planner/Builder
Peter S. Jensen & Associates, LLC

Attachment: LLC Project Resume

**Eva Lane Lot Owners' Association
Executive Board
P.O. Box 247
Stoddard, NH 03464**

January 6, 2022

Stoddard Conservation Commission
1250 Rt. 123N
Stoddard, NH 03464

Dear Stoddard Conservation Commissioners,

On behalf of the Eva Lane Lot Owners' Association, we are writing this letter in support of the proposed purchase of the Wilson Property. The residents living along Eva Lane witness and experience the value of the 40+ acres on a regular basis. We see firsthand that this land is a natural corridor for the abundant wildlife living in the area. We have frequent encounters with a variety of wildlife including, but not limited to deer, moose, fox, bear, and bobcats. As we head out our driveways, it is best to factor in some extra time for a staring contest with a doe and her new fawn or tom turkey standing guard as his growing family crosses the road. When we see our neighbors, we share stories of our sightings of geese, otters, and even bald eagles. We can walk up Eva Lane and quickly access the Peirce Wildlife and Forest Reservation for a pleasant hike. Within minutes of launching our boats, we can enjoy the natural beauty of the 4,000 feet of shoreland and observe the waterfowl and aquatic life that are protected from boat traffic. In the fall we can view the beautiful foliage of the trees that have been able to thrive for so many years and in some cases, centuries. We can fall asleep listening to the call of owls occupying the old growth pine trees and awaken to the call of the loons. The Wilson property represents an extraordinary natural, recreational, and educational resource for the current and future citizens of Stoddard. We are writing to express our full support for the Stoddard Conservation Commission's campaign to protect this 40-acre treasure that is literally on our doorstep.

Sincerely,

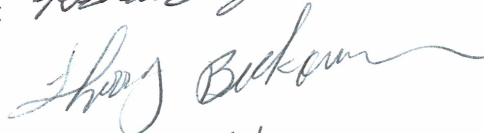
Charles Richmond, President



Richard Shaw, Vice President



Sherry Bukovcan, Treasurer



Anita Shaw, Secretary



January 6, 2022

Cooperative Extension

Forestry & Wildlife
212 Nesmith Hall
131 Main Street
Durham, NH 03824
V: 603.862.4861

extension.unh.edu

County Offices

Belknap County
527.5475

Carroll County
447.3834

Cheshire County
352.4550

Cöös County
788.4961

Grafton County
787.6944

Hillsborough County
641.6060

Merrimack County
255.3556

Rockingham County
679.5616

Strafford County
749.2529

Sullivan County
863.9200

Education Center
877.398.4769 (Toll Free in NH)

**UNH Cooperative Extension
State Office**
862.1520

Geoff Jones
Chair, Stoddard Conservation Commission
PO Box 336
Stoddard NH, 03464

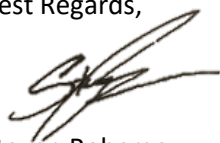
Dear Geoff,

Thank you for the opportunity to visit the Wilson property on Highland Lake. As the former Cheshire County Extension Forester who covered Stoddard in my work, I was impressed with the condition and size of the property located on the lake. As you are aware, Stoddard is a rural town with a long history of land conservation, but the area of Highland Lake has experienced intense development and continues to be under pressure today. The Wilson property is truly a hidden gem.

I wanted to express my support for the Town of Stoddard to conserve this property to protect its forest resources. I'm also supportive of the concept for the property to serve as an educational and ecological resource for the Town and Region. As an Extension Educator providing forestry and natural resources education to the public, the Wilson property in Stoddard would serve as a wonderful resource to demonstrate natural systems uninterrupted by agricultural clearing or extensive timber harvesting – right in the heart of town!

Our Forestry & Wildlife Program at the University of NH Cooperative Extension is excited to work with the Town to provide educational opportunities should the property be conserved and serve as a resource to the public. Thanks again Geoff for the walk in the woods and I look forward to many more.

Best Regards,



Steven Roberge
Extension Forestry Specialist
UNH Cooperative Extension
603-862-4861
steven.roberge@unh.edu

Davis Public Library

1391 Route 123
Stoddard, NH 03464

January 7, 2022

Town of Stoddard Conservation Commission
ATTN: Geoff Jones, Chair
1450 Route 123 North
Stoddard, NH 03464-4153

RE: Wilson Community Forest Project

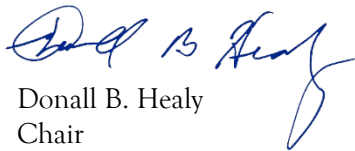
Dear Geoff:

At a meeting on January 3, 2022, the trustees of the Davis Public Library, at the recommendation of Inga Dellea, Library Director, voted unanimously to endorse and support the Stoddard Conservation Commission's efforts to acquire the "Wilson Lands" on Highland Lake and establish the "Wilson Community Forest" ("WCF").

The mission of the Davis Library is *"to promote community, civic engagement, life-long learning and fun for all through a variety of innovative physical and digital resources, programs and services."* The WCF will provide a wonderful extension of the library's facilities, enabling it to offer outdoor programs such as animal tracking, identification of trees and mushrooms, photography and astronomy while increasing environmental awareness and responsibility.

I'm sure the library will develop other relevant programs as plans for the WFC progress. The trustees and director are looking forward to working with the Conservation Commission and other interested parties in creating this extraordinary community asset.

Sincerely yours,



Donall B. Healy
Chair

Stoddard School District School Board
200 School Street
Stoddard, NH 03464

February 22, 2022

Dear Stoddard Conservation Commission,

On behalf of the Stoddard School District School Board, I am happy to write this letter supporting the commission's efforts to purchase the 40-Acre "Wilson Community Forest."

The preservation of this pristine parcel will benefit the residents of Stoddard and the James Faulkner Elementary School (JFES) community for years to come. JFES has had a long-standing commitment to outdoor education, and has been at the forefront of providing creative outdoor learning opportunities since the beginning of the COVID-19 pandemic. The Board is very excited at the prospect of adding the "Wilson Community Forest" to the list of local resources that can support the educational mission and values of JFES.

Thank you for your efforts to protect this amazing property for our community.

Sincerely,

A handwritten signature in blue ink, appearing to read "L. Davenport", with a stylized flourish at the end.

Lisa A. Davenport, Vice-Chair
Stoddard School District School Board

Board Members:

Alfrieda Englund, Chair

Lisa Davenport, Vice-Chair

Cynthia Lake, Member

Stoddard Historical Society
PO Box 860
Stoddard, NH 03464

Feb. 28, 2022

Geoff Jones
Stoddard Conservation Commission
Stoddard, NH 03464

Dear Geoff:

I am writing on behalf of the Stoddard Historical Society in support of the Stoddard conservation commission's proposed Wilson Land protection effort. This property, as one of the few large undeveloped and not formally conserved pieces of land on the Highland Lake, could be used educationally to illustrate important elements of Stoddard history.

Portions of this land were used for agricultural purposes in the past. Stoddard was first settled for farming purposes and this property can be used to illustrate that history. When the farms were abandoned and grew back to forest, large logging and woodenware companies made use of the trees that grew on the farmland. The Wilson Land has not been logged for many decades and is similar to areas of the town prior to large scale harvesting for woodenware production.

Perhaps most importantly, the conservation of this tract will protect a large section of lake-frontage similar to much of the land on the lake prior to the development and construction of hundreds of cottages on and near the shore. This project would protect the quality of the water and wildlife in and near the lake while also illustrating what the shore frontage was like prior to extensive development in the 20th century.

The Stoddard Historical Society strongly supports the efforts of the conservation commission and the town in the Wilson Land protection effort.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Alan F. Rumrill". The signature is fluid and cursive, with a large, stylized initial "A" and "R".

Alan F. Rumrill
Curator and Past President
Stoddard Historical Society