

Forest Notes

NEW HAMPSHIRE'S CONSERVATION MAGAZINE

Northern Pass Power Play
Signs of Autumn
Saving the
Pine Barrens

AUTUMN 2011

SOCIETY FOR THE
PROTECTION OF
NEW HAMPSHIRE
FORESTS



forestsociety.org

US \$4.95



SAVING SONGBIRDS

Join outdoor adventurer Willem Lange as he takes us from New England to Costa Rica and Jamaica to meet these colorful and melodic migratory birds and the people who are dedicated to SAVING SONGBIRDS.

PREMIERING IN OCTOBER
ONLY ON NHPTV



nhptv.org

Anyone can give
advice about investing.
We suggest
investing in advice.

Like many of our friends in the Granite State, Cambridge Trust Company of New Hampshire values preservation and growth. Since 1890, Cambridge Trust has provided its clients with thoughtful, comprehensive investment management services. At Cambridge Trust, we understand that managing your wealth means more than simply managing your assets.

Todd D. Mayo, *President*
603-369-5100 • todd.mayo@cambridgetrust.com

Cambridge Trust Company
of New Hampshire



FEATURES

4 Saving New Hampshire's Pine Barrens

By Jeffrey Lougee

Pine barrens were once common in some areas of the state, but today this ecosystem is one of New Hampshire's rarest natural communities.

8 Power Play

By Jack Savage

An opposition view of where the Northern Pass proposal stands.

12 Agricultural Ethos Alive in Londonderry

By Joyce El Kouarti

Insight into the values that led one landowner to decline a million dollar offer.



On our cover:

This photo, titled "Birch Log Cascade", was taken by New Hampshire photographer Steve Seron.



DEPARTMENTS

2 WOODPILE

News not so neatly stacked

3 THE FORESTER'S PRISM

Forests are still the answer

15 IN THE FIELD

Featured art exhibit

16 CONSERVATION SUCCESS STORIES

Crotched Mountain conservation; Washington woodlot protected; Historic Chichester homestead preserved; and more

22 HEARD ON THE TRAIL

Friends conserved 476 acres in Bradford; Forest Society invites comments for LTA accreditation; conservation alliance supports Monadnock conservation effort

24 PUBLIC POLICY UPDATE

Final federal spending package impact on conservation programs; LCHIP latest; Cannon Mountain control

26 NATURE'S VIEW BY DAVE ANDERSON

Signs of Autumn

28 PROJECTS IN PROGRESS

Protect a New Hampshire Icon—Mount Monadnock



**SOCIETY FOR THE
PROTECTION OF
NEW HAMPSHIRE
FORESTS**

CHAIR

Carolyn Benthien, *Goffstown*

VICE CHAIR

William Webb, *Holderness*

SECRETARY

Midge Eliassen, *Sunapee*

TREASURER

Leonard "Hunt" Dowse, *Hancock*

PRESIDENT/FORESTER

Jane A. Difley, *Webster*

BOARD OF TRUSTEES

Malin Clyde, *Durham*

Katharine Eneguess, *Jaffrey*

Pamela Hall, *Portsmouth*

Deanna Howard, *Etna*

William McCarten, *Lancaster*

Amy Meyers, *Jaffrey*

Jack Middleton, *Freedom*

Howard Moffett, *Canterbury*

William H. Smith, *Moultonborough*

Hank Swan, *Lyme*

Stephen Taylor, *Meriden*

Bill Tucker, *Goffstown*

Patricia Vashinder, *Concord*

Don Wharton, *Landaff*

STAFF

EXECUTIVE

Jane A. Difley, *president/forester*

Karen Rose, *executive assistant*

FINANCE/ADMINISTRATION

Martha Booth, *receptionist*

Michelle Morse, *human resources specialist*

Tina Ripley, *administrative assistant*

Leslie Thompson, *finance specialist*

Denise Vaillancourt, *vice president, finance*

MEMBERSHIP/DEVELOPMENT

Nancy Ford Huckins, *membership specialist*

Susanne Kibler-Hacker, *vice president, development*

Allan Krygeris, *technology specialist*

Margaret Liszka, *director, membership*

Ann McCoy, *membership coordinator*

Meredith Reed O'Donnell, *development associate*

Martha Twombly, *development specialist*

COMMUNICATIONS/OUTREACH PROGRAMS

David Anderson, *director, education and volunteers*

Carrie Deegan, *land steward coordinator*

Joyce El Kouarti, *communications director*

Jack Savage, *vice president, communications/outreach*

POLICY/LAND MANAGEMENT

Will Abbott, *vice president, policy/land management*

Frank Allen, *building and grounds*

Clare Brown, *The Rocks*

Rita Carroll, *land management and policy assistant*

George Frame, *senior director of forestry*

Nigel Manley, *director, north country property*

Carleen Quinn, *The Rocks*

Jason Teaster, *property manager*

Wendy Weisiger, *field forester*

Chris Wells, *senior director for strategic projects—policy*

LAND PROTECTION

Joslin Bennett, *easement steward*

Chris Borg, *land protection specialist*

Paul Doscher, *vice president, land conservation*

Paul Gagnon, *easement steward*

Brian Hotz, *senior director for strategic projects—land protection*

Tom Howe, *senior director, land conservation*

Lori Johnson, *land protection assistant/data base manager*

Michael Speltz, *land protection specialist*

Daniel Sundquist, *director, land conservation planning*

Ryan Young, *director, easement stewardship*

THE WOODPILE — NEWS NOT SO NEATLY STACKED



Earlier this year, Elizabeth Rollins Mauran, great granddaughter of Forest Society founder Governor Frank West Rollins, donated a portrait of the Governor that now hangs in the lobby of the Conservation Center. Photo by Jack Savage.

Rollins, who was a founder of the Forest Society. Those and additional lands were subsequently deeded to the state by the Forest Society.

Forest Notes 50 Years Ago

"In a tribute to Governor Frank West Rollins, the Forestry and Recreation commission has redesignated Mt. Kearsarge State Park on the southern slope of the imposing mountain as Rollins State Park," wrote G. Henry Crawford in the fall 1961 edition of *Forest Notes*. Crawford chronicled the history of the Forest Society's protection of lands on Mt. Kearsarge, starting with 500 acres in Warner acquired in 1918 as a memorial to

By the Numbers

The Forest Society's annual report for FY2011 is available online by visiting www.forest-society.org (click on the 'About Us' tab and look for 'Annual Reports'). Included are financial statements and IRS Form 990. If you'd prefer to receive a printed copy by mail, just give Denise Vaillancourt, VP for Finance, a call at 603-224-9945, and she'll be happy to have one sent to you.

Little Harbor Loop Trail at Creek Farm

After more than a year of planning, volunteers built a new 1.5-mile walking trail that connects the Forest Society's Creek Farm Reservation, the state's Wentworth Coolidge Historic Site, and City of Portsmouth conservation land along waterfront in Portsmouth. For directions to Creek Farm and a map of the trail, visit the Forest Society's online guide to our lands at www.forestsociety.org/ogol.



Tomas Syllia and Charlie Wheeler were among more than 30 volunteers who helped build the new Little Harbor Loop Trail this fall. Photo by Peter Britz.

Society for the Protection of New Hampshire Forests

A non-profit membership organization founded in 1901 to protect the state's most important landscapes and promote wise use of its renewable natural resources. Basic annual membership fee is \$35 and includes a subscription to *Forest Notes*.

Editor: Jack Savage

Managing Editor: Joyce El Kouarti

Design & Production: The Secret Agency

Printing: TDS Printing

Forest Notes is published four times a year and printed on elemental chlorine-free Sappi Flo paper with 10 percent post-consumer recycled content. Sappi Flo is made from pulp purchased from suppliers who document sound environmental practices and sustainable forest management.

Permission is required for reproduction of any part of this magazine.

Copyright 2011 SPNH. US ISSN: 0015 7457.

54 Portsmouth Street, Concord, NH 03301 | Phone: (603) 224-9945 | Fax: (603) 228-0423

E-mail: info@forestsociety.org | Internet: www.forestsociety.org

The Forest Society proudly supports the following organizations:



Cosponsor



Underwriter



Member

Forests Are Still the Answer

President/Forester Jane Difley delivered the following address at the Forest Society's 110th Annual Meeting in September, at which the centennial of the Weeks Act was celebrated.

I can't help but wonder if John Wingate Weeks imagined what the White Mountains might look like today. What did Philip Ayres and Ellen McRoberts Mason, Allan Chamberlain, and Gov. Rollins, or even President Taft, who signed the Weeks Act, think the National Forest they made possible would look like 100 years later?

Did they envision the Kancamagus Highway? Large swaths of "capital W" Wilderness? Could they have imagined the advances in forestry and our deeper understanding of environmental science? How about foreseeing North Conway and Lincoln as tourist destinations? Could they have imagined the interstate highways and cars that enable more than six million people to visit the White Mountains each year? Could they have foreseen snowmobiles or mechanized logging or spring skiing in Tuckerman's Ravine?

I might suggest that the giants of prescience who made the Weeks Act law could not have envisioned all that has changed and transpired since 1911. Instead, they acted on an idea born of their own era. That idea was that forests represented such a robust bounty of benefits that they had to be conserved and managed well. The Forest Society's own mission statement of 1904 captures this idea: *We are a forestry organization seeking to perpetuate the forests of New Hampshire through their wise use and their complete reservation in places of special scenic beauty.*

It is this ethic that is at the heart of the legacy of the Weeks Act.

But what of us a century later? What would Weeks and the forces of forest protection think of the White Mountains today?

I would like to think that the pioneers of the Weeks Act would be pleased with what

we have done with the place. We, as the collective stewards of "our" national forest, have allowed it to restore itself nicely. We continue to add to it. Yes, every so often we argue a bit amongst ourselves about renovating the kitchen or which windows should have curtains, but in the end we find ways to agree because we stay true to the ethic of the well-managed forest. We understand that forestry begets land conservation, and that land conservation needs sustainable forestry.

And what of 100 years from now? Looking ahead, our generation faces what seem to be monumental questions about the natural world and our own reliance upon it. What might the specter of climate change bring? Could invasive species and pests radically alter our forest health and composition? Will we overwhelm our White Hills with too many people loving them too much? How do we preserve the diverse and wondrous array of wildlife in our woods and waters? Can our forest products industry remain competitive in world markets? Can we slake our seemingly unquenchable thirst for energy? Will we continue to have adequate supplies of clean drinking water? Clean air to breathe? Will we have, as we do today, places of peace and quiet in the natural world?

If so, what must we do, and how fast must we do it?


As overwhelming as these questions seem, I believe the answer is simple: forests are the answer. Forests were the answer to clean water and commerce a century ago; they are the answer to carbon, energy and economy, clean air, and clean water today; and they will be the answer to the concerns of our descendants a century hence.

If we've learned anything from the passage of the Weeks Act, it is that protecting forests does not happen by accident. And so

it is the duty of our generation to ensure that our forests are still here 100 years from now.

It is our duty to protect them from the leviathan of encroaching sprawl that threatens to swallow the Granite State south to north, bite by two-acre bite. And it is our duty to defend our forests from those corporate interests who threaten to drape even our long-protected hillsides with high voltage transmission lines north to south, tower by tawdry tower.

On the occasion of the Forest Society's centennial 10 years ago, we launched New Hampshire Everlasting, a vision that calls for the protection of an additional one million acres of forests and farms over a quarter century. Our generation still has the opportunity to finish making that a reality. We've made admirable progress — 30 percent of New Hampshire's landscape is now conserved, much of it as working forest. And though America has changed since 2001, I believe that ten years ago we were right, just as John Wingate Weeks was right 100 years ago. Protecting New Hampshire's forests is still the right thing to do, and the one thing we must do.



Jane Difley
President/Forester



Jane Difley is the president/forester of the Society for the Protection of New Hampshire Forests.



SAVING NEW HAMPSHIRE'S PINE BARRENS

Above: The largest intact pine barren left in New Hampshire is the Ossipee Pine Barrens, found on glacial outwash deposits around Ossipee and Silver Lakes to the south of the Mount Washington Valley. Photo by Jeff Lougee.

By Jeffrey Lougee

Pine barrens were once common across New Hampshire, stretching thousands of acres across the northeastern part of the Lakes Region and the lower Merrimack River Valley. Found on dry, sandy soils that were deposited during the retreat of the last continental ice sheets, this unique natural community is characterized by pitch pine (*Pinus rigida*), scrub oak (*Quercus illicifolia*), low sweet blueberry (*Vaccinium angustifolium*), and other hardy plants.

Today, this ecosystem is one of New Hampshire's rarest natural communities, making up less than half of one percent of the state's landcover (New Hampshire Fish and Game Department, 2010). Its scarcity is due to a number of reasons, foremost being the suitability of its flat and sandy soils for residential and commercial devel-

opment. Sand and gravel mining has also eliminated pine barrens, and some areas have been converted to more commercially valuable forest types like white pine.

The largest intact pine barrens ecosystem left in New Hampshire is the Ossipee Pine Barrens, which is found on glacial outwash deposits around Ossipee and Silver Lakes to the south of the Mount Washington Valley. Over 1,500 acres of the Ossipee Pine Barrens have been protected by numerous conservation organizations, and the area is being managed to maintain the pine barrens ecosystem. Smaller pine barrens are found in southern New Hampshire, such as the Concord Pine Barrens, which include the state's only population of the endangered karner blue butterfly (*Lycaides melissa samuelis*).



Right: This unique ecosystem is home to many uncommon species, including the state butterfly, the rare karner blue. Pitch pine communities foster wild lupine, on which the adult butterfly lays its eggs. Dense stands of lupine are necessary to ensure that enough butterflies are produced to maintain the population over time. Photo by Eric Aldrich.

A Natural Community of Distinction

This unique ecosystem is home to many uncommon species, some of which can't be found elsewhere in New Hampshire, and a few that are only found in the pitch pine barrens areas of the northeastern United States. The New Hampshire Natural Heritage Bureau documents more than 50 species of rare plants and animals occurring in pine barrens, including a variety of ground and shrub nesting bird species, dozens of insect species, and several rare plants. Whippoorwill (*Caprimulgus vociferus*), eastern towhee (*Pipilo erythrophthalmus*), and the state butterfly, the rare karner blue, are just a few of the well known yet uncommon wildlife species that depend upon pine barrens for their habitat.

These wildlife depend upon the plant species and unique forest structure associated with pine barrens for various parts of their life histories. Many of the rare invertebrates depend upon just one or two plant species to serve as their host. For example, the caterpillar of the highly uncommon pine pinion moth (*Lithophane lepida lepida*) feeds exclusively on pitch pine needles. Similarly, the ground and shrub nesting birds found in pine barrens depend upon the unique habitat niches available; in this case the patches of bare mineral soil and dense shrubby thickets for nesting that are created and maintained by fire.

Whippoorwills were once widespread across the northeast but have declined substantially over the past 50 years. Their decline is believed to be the result of a number of factors. Habitat fragmen-



The plant and animal species native to the pine barrens are uniquely adapted to disturbance from fire. These forests thrive with disturbance, which has historically come from repeated naturally-occurring fires that burned in these droughty areas. Photo by Jeff Lougee.

tation and residential development has made their nests, which are on the ground, more susceptible to depredation from domestic cats. Their decline is also partly attributed to a drastic reduction in a key food source, specifically the large saturniid (silk) moths that were substantially killed off by the biocontrol released for gypsy moths. Whippoorwills still thrive in large, intact areas of pine barrens because of the abundance of moths that remain there, as well as the flat and dry sandy areas that provide suitable nesting locations. The largest concentrations of these birds across the north-east are all associated with remnant pine barrens.

Like the whippoorwill, the karner blue's habitat needs are very specific: the pitch pine communities they depend upon foster wild blue lupine (*Lupinus perennis*). The adult butterfly lays its eggs on this blue flower, and when the eggs hatch, the larvae feed exclusively upon the plant's leaves. Dense stands of lupine are necessary to ensure that enough butterflies are produced to maintain the population over time, and lupine is known to proliferate after hot fires burn through the leaf litter and other organic matter on the ground to reveal the mineral soil below.

Thriving Through Upheaval

Ecologically, pine barrens require disturbance to regenerate pitch pine and other species unique to this natural community, to remove competing vegetation, and to maintain structural diversity. Historically, such disturbances have come from repeated and prolonged fires that burned in these droughty areas. Now vast areas of pine barrens have been lost through human activity to suppress wildfire, cultivate commercial forests, and industrial, commercial and residential development. Today, a combination of mechanical treatments and prescribed burning is commonly used to provide disturbance. This includes a mix of timber harvesting, mowing of dense shrubby vegetation, and prescribed burning.

Timber harvests focus on removing fire-intolerant species to favor hard pines (pitch pine and red pine (*Pinus resinosa*) and other pine barrens species. Often, the target species to be removed with timber harvests include white pine (*Pinus alba*), red maple (*Acer rubrum*), American beech (*Fagus grandifolia*), and red oak (*Quercus rubra*). These are the tree species most likely to become established in pine barrens in the absence of fire. Timber harvests are also used to create

openings in the canopy even when the forest is already dominated by pitch pine; this is needed to promote the shrub layers in the forest understory. Additionally, the soil scarification created during a harvest may help to promote the regeneration of pitch pine and other pine barren species. Harvests are sometimes planned and timed to coincide with good seed years for pitch pine.

Mowing is used to manage tall shrubs, with specific emphasis on treating dense thickets of scrub oak, especially those with many dead branches. Older areas of scrub oak with average heights in excess of six feet are often senescent, with many dead branches, and have formed impenetrable thickets. These areas have reduced value for the rare invertebrate species, contribute to a localized loss of plant diversity as they completely shade the forest floor, and represent fire hazards. Scrub oak is typically managed to maintain average height of less than six feet, with adequate spacing for other low stature shrubs and vegetation to colonize the spaces in between.

Growth Fueled by Fire

Following timber harvesting or mowing, prescribed burning is used to remove the smaller fuels left after these mechanical treatments. This includes leaf litter, twigs, small branches, and the slash remaining from harvesting or mowing. The fires are also set when conditions are dry enough to allow the fire to burn through both the leaf litter and organic material below to expose the mineral soil. These areas of exposed mineral soil are the seed beds required by pitch pine and other pine barren species to regenerate. These soils can be suitable locations for ground nesting birds, especially common nighthawks and whippoorwills. The prescribed fires also remove the fire-intolerant species that may not have been captured by the timber harvest, like small diameter white pine and hardwoods.

The plant and animal species native to the pine barrens are uniquely adapted to disturbance from fire. For example, pitch pine has extremely thick bark that provides a protective blanket around the cambium layer to prevent the tree from being girdled when exposed to fire. Pitch pines are also one of the few coniferous species capable of stump sprouting, or sprouting from the trunk. An entire tree can burn, yet survive the fire through its ability to sprout. Blueberry species also become highly reproductive after burning because the new growth is able to produce significantly more flow-

ers and, therefore, fruit. This is why commercial blueberry fields are often burned to maintain the highest levels of productivity.

Giving Nature a Helping Hand

A lack of fire in pine barrens leads to a number of management challenges, including the accumulation of fuel loads – leaves, twigs, and any other vegetation that can burn – which can generate wildfires that are difficult to control. The absence of fire also leads to the encroachment of fire-intolerant species, which eventually displace the unique species that make up this natural community. That in turn leads to the loss of habitat for rare species populations, particularly the loss of structural diversity, and the decreased amount of open-canopied habitat niches.

Pine barrens are comprised of highly flammable vegetation. Many of the plant species have flammable oils that enable them to burn with high intensity even during the growing season, when water is moving through the live vegetation. Without periodic fires, the amount of material available to burn in a pine barrens can accumulate to dangerous levels, and the wildfires that can result may not only cause significant ecological damage, but also threaten life and property.

Due to fire suppression throughout the state, many pine bar-

rens now have high fuel loads and represent considerable fire hazards during periods of drought. This issue is further amplified by the extent of residential and commercial development intertwined amongst New Hampshire's pine barrens.

Because of fire suppression over the past 50-100 years, fuel loads have reached very high levels in the pitch pine-scrub oak habitats in Ossipee, Madison, Freedom, and Tamworth. The last large-scale wildfire in the area was in 1957, when several hundred acres burned north of Ossipee Lake Road in Madison and Freedom. The lack of fire since then has enabled fire-intolerant species, like white pine and some hardwoods, to gain a foothold, while pitch pine and scrub oak have declined.

After thorough research, The Nature Conservancy launched a comprehensive project to maintain the Ossipee Pine Barrens using a combination of mechanical vegetation management and controlled ("prescribed") burning. This effort will both restore and maintain the critical habitat found in the Ossipee Pine Barrens while helping to reduce the current wildfire hazard. ♧

Jeffrey Lougee is the director of stewardship and ecological management for the New Hampshire Chapter of The Nature Conservancy.

RESTORING PITCH PINE HABITAT AT THE HARMON PRESERVE

By Wendy Weisiger

The Forest Society has an on-going effort to restore the portion of the pine barrens occurring on its property in the Town of Freedom. The Harmon Preserve, containing nearly 200 acres of pitch pine-scrub oak habitat, was purchased in 1999 with pine barrens habitat restoration in mind. Several years of planning went into the development of a management schedule that includes removal of the competing tree species that have invaded the site since the last time the property burned. Several monitoring sites have been established on the property to track the occurrence and abundance of bird and moth species utilizing the property before and after the restoration.



The first harvest of competing trees took place in the spring of 2011 and will be followed by at least one more harvest planned for the spring of 2012. The habitat area will then be assessed and prepared for a prescribed burn in the following few years.

The Forest Society has the opportunity to add to the knowledge base for management of this rare natural community by following several different restoration paths. Cutting prescriptions will be varied, and the use of site preparation through mechanical scarification and planting or seeding of pitch pine will replace fire in at least one area.

The restoration of this habitat is a project that will take decades. Progress will be monitored over the years to assess how well our methods are working and what adjustments to our management we might make.

"We are fortunate to have the expertise and experience of other natural resource professionals to collaborate with," said George Frame, senior director of forestry at the Forest Society. "The State of New Hampshire and The Nature Conservancy both also have pitch pine barrens they are each using different methods to restore. We hope that through all of our work and through sharing ideas and methods, we'll all be successful in restoring this unique habitat to New Hampshire."

About 150 acres of the 300-acre Harmon Preserve will be actively managed for pine barrens. The remaining 150 acres, like this seasonally flooded natural community along the Ossipee River, will remain uncut and managed as an ecoreserve. Photo by Peter Ellis.

Power Play



An opposition view of where the Northern Pass proposal stands today.

By Jack Savage



The distribution towers in this existing right of way in Easton NH would be dwarfed by a parallel corridor of new transmission towers at least twice as tall if the current Northern Pass proposal is executed. Photo by Jack Savage.

Electricity giants have teamed up in an attempt to drape another HVDC transmission line on more than 1,100 towers across 180 miles of New Hampshire landscape. Grassroots opposition is determined to see the proposal fail. Is the endgame in sight?

When Public Service of New Hampshire officials made a very public announcement last fall about a project that would string high voltage transmission line through the New Hampshire landscape, they pitched the plan on the projected benefits of temporary jobs, property tax revenues, and “green” energy. There were big smiles all around... What’s not to like?

Based on the public outcry since then, just about everything.

And the harder project proponents have tried to persuade a skeptical public, the more angry and determined that populace has become. It would be hard to argue that PSNH, in particular, foresaw or was prepared for the depth and strength of the opposition to the Northern Pass proposal.

As opposition has grown, Northern Pass changed tactics, fought desperately to hold onto their perceived ability to pursue the use of eminent domain, and waffled on exactly what route they propose to use to help Hydro-Quebec sell 1200MW of electricity into southern New England. The project is a partnership of Northeast Utilities (owner of PSNH), NStar, and the Canadian Hydro-Quebec.

Opponents—including the Forest Society—have argued that benefits touted by Northern Pass are more marketing than reality, and that the project is, in fact, a private commercial development meant to benefit its corporate owners, offering little or no benefit to the people of New Hampshire. Furthermore, says the opposition, the 180 miles of high-voltage power line and attendant towers would be an unnecessary blight on New Hampshire’s landscape, one that would adversely impact existing conserved lands including ten miles through the White Mountain National Forest. Property values along the route would plummet; lives and lifestyles would be ruined. Why in the world should New Hampshire agree to any such thing?

Where the Battle is Being Waged

The battle over the Northern Pass proposal is being fought on several fronts. First, there is a regulatory process that appears to favor the applicants given that the process is designed to issue permits. Northern Pass has applied to the federal Department of Energy (DOE) for the Presidential Permit it needs to cross the Canadian border, and to the US Forest Service for a Special Use Permit it needs to site the transmission lines and towers through the White Mountain National Forest. The DOE refers to the Presidential Permit process as “applicant driven”.

The most important regulatory decision to be made on Northern Pass is a state decision, made by the New Hampshire Site Evaluation Committee. This Committee, established by state law, decides whether the project can be built on land in New Hampshire. It

remains to be seen whether the SEC will elect to require comprehensive economic and environmental analyses on which to base its decision. Will they ask and answer the right questions?

The second front is political and includes a fierce fight over eminent domain. After Northern Pass representatives used the threat of eminent domain in conversations with landowners along their preferred route, opponents sought legislative relief. HB648, which comes up for a vote in the state legislature during the 2012 session, would make it abundantly clear that a participant-funded transmission project like Northern Pass could not use eminent domain.

The most visible battleground has been for the minds and opinions of the public. Opposition to the Northern Pass proposal swept through the 31 communities through which the proposed line would pass. Of the 26 towns that considered Northern Pass ballot initiatives last March, all voted to oppose Northern Pass, and all by wide or unanimous margins.

More than 2,500 citizens attended a series of seven DOE hearings last March, the overwhelming majority of whom were strongly opposed. Only in Franklin, where Northern Pass proposes to build a \$250 million facility to convert direct current into alternating current, did any significant number of people speak in favor of the project. Most in favor were city officials, swayed by the claimed tax benefit of more than \$4.2 million a year. But even there, nine of the 21 Franklin residents who spoke expressed opposition.

The news media, recognizing the community angst and controversy over the proposal, has covered the Northern Pass debate extensively. Northern Pass itself, funded liberally by Hydro-Quebec, responded with an advertising blitz, paying for space on television, newspapers, radio, and online to tout its message.

The Participant-Funded Project

Key to understanding the debate is understanding that Northern Pass has been proposed as a different kind of project. The high-voltage direct current transmission line would connect Hydro-Quebec’s power generation facilities in Canada to the New England electrical grid—it would not be an improvement to the grid itself. The transmission line would be privately owned and unavailable for use by other power producers.

COMPETING PROJECTS, DWINDLING DEMAND

In addition to the existing 2000MW HVDC transmission line through Canada to Massachusetts overseen by National Grid, there are several similar proposals. The Champlain-Hudson Express would run from Canada under Lake Champlain and be buried along existing railroad corridors to southern New York. In mid-summer, National Grid, Emera, and First Wind announced preliminary plans for a major new transmission project between northeastern Maine and Massachusetts—the North East Energy Link (NEL). In doing so, they clearly suggested that the NEL had advantages over Northern Pass, including less visual blight as a result of burying the line, along with greater tax benefits for New Hampshire. NEL proposes 220 miles of underground, HVDC transmission lines delivering 1100 MW of wind power from northern Maine to southern New England via existing rights of way (primarily) or transportation corridors.

All this comes at a time when some studies suggest that demand for electricity is slowing. According to the Electric Power Research Institute, residential electricity demand has leveled off and is expected to fall over the next decade by about .5 percent. While the reasons behind the trend are not fully understood, it appears to be due in part to more efficient devices and other conservation measures.

For those opposing Northern Pass, this is further evidence that the proposal has little to do with true energy needs or “green” energy, but rather is primarily about energy generators and energy transmission companies competing against each other for a tightening market while offering little or no real public benefit.

Other transmission projects are reportedly on the horizon as well, begging at least three key questions: How much transmission capacity does the region really need, if any? If additional capacity is truly needed, should we not put such projects out to bid to maximize the public benefit and minimize the negative impacts? And how much might we gain by investing the more than \$1 billion construction cost of Northern Pass into energy conservation instead?

This past spring, several conservation organizations led by the Conservation Law Foundation, including the Forest Society, filed a motion with the DOE asking for a regional energy study to assess the nature and extent of New England’s need for

Canadian hydropower and to develop an appropriate plan to bring that power to the region. Northern Pass dismissed the request as a delay tactic.

As a so-called “participant-funded” project, Northern Pass has not sought nor earned any declaration of public need for the electricity that would be imported from Canada. This distinction makes Northern Pass a private, commercial development, fundamentally different from traditional public utility projects. As such, Northern Pass should be evaluated on that basis, not on purported “public” benefits.

Much has been made over whether any of the electricity transmitted via Northern Pass would, in fact, be used in New Hampshire, and if so, whether it would jeopardize New Hampshire-based renewable energy generation. The reality is that the market Hydro-Quebec seeks is south of the Granite State. There is no plan for any of this power to be sold directly to New Hampshire electricity consumers.

*Northern Pass has awakened
among many Granite Staters
the “live free or die” gene.*

Is Anyone Listening?

Among the vexing questions faced by New Hampshire citizens and landowners is to what extent public opinion will matter. Large utilities have become accustomed to citizen opposition to their proposed projects, and they are not unskilled at trying to achieve their goals regardless of how the public feels.

On the heels of the stampede of public opposition in the spring of 2011, the Forest Society called on Northeast Utilities, NStar, PSNH, and Hydro-Quebec to withdraw the Northern Pass proposal.

In letters to the CEOs of the partner companies, Forest Society President/Forester Jane Difley suggested that “the time and energy it will require to overcome public opposition would be better spent building consensus around better solutions to our long-term energy future. We ask that you look for more innovative, less damaging, and more acceptable ways to do so.” No response was ever received.

But political leaders are more tuned in to the concerns of their constituents. Senator Kelly Ayotte and Congressman Charlie Bass have both publicly opposed the project. Governor John Lynch, who initially expressed support, has inched his way backward after receiving thousands of letters in opposition. He has since stated that Northern Pass should not go forward without the support of the communities it would impact. In the last legislative session, the NH House voted overwhelmingly in favor of HB648 to preclude the use of eminent domain by Northern Pass.

However, the great gnawing fear of those who oppose the project is that their voices will not be heard, that corporate dollars will win out over popular objection. The permitting process does not include a democratic vote.



More than 100 people gathered for a presentation in Franklin about the Northern Pass proposal this fall. The Franklin meeting was just one of several held across the state. Photo by Joyce El Kouarti.

Where Are We Now?

Northern Pass continues to implement a well-funded public relations campaign using paid and earned media to try to change minds and find support. But the region-wide advertising blitz has helped the opposition as much as the proponents. As more people hear about Northern Pass, more questions are raised and news stories written about the legitimacy of the project's claimed benefits. In effect, Northern Pass has helped build its own opposition.

"Never get a sign-maker mad at you," said one opponent of Northern Pass whose business has been instrumental in building public opposition. The same could be said of farmers and sugar-makers, young families with children, second-home owners and wealthy retirees. The anti-Northern Pass messaging is often inconsistent, reflecting the broad social and political spectrum of those opposing the project. Rich and not, conservative and liberal, activist and introvert, young and old—the opposition derives its power from its resistance to easy pigeon-holing. Northern Pass has awakened among many Granite Staters the "Live Free or Die" gene and spawned a new generation of community activists.

The grassroots opposition counters the pro-Northern Pass messaging with a constant stream of blogs and websites (see sidebar), signs, posters, public information meetings and publicity stunts designed to undercut the paid messaging. Social media has brought opponents together and fueled their success.

As of fall 2011, the public is expecting Northern Pass to unveil a "new" route from the Canadian border in Pittsburg to Groveton. The strategy would appear to be to attempt to acquire enough contiguous land and rights-of-ways from landowners in order to construct the transmission line regardless of public opposition.

In Coos County, where locals predicted early on that the project would turn neighbor against neighbor, the community fabric is starting to fray as a few landowners have agreed to sell, much to the consternation of others. Community leaders are pleading for unity: *If we're busy fighting with each other, we're leaving these pikers free to conduct more shady deals...*, editorialized Karen Ladd, publisher of *The News and Sentinel* in Colebrook.

While the objections from far northern New Hampshire have garnered the most attention, people and communities along the proposed line from Groveton to Deerfield also oppose Northern Pass. It is not clear that Northern Pass will have any less trouble siting a proposed private transmission line along an existing right of way granted for lower-impact electricity distribution.

Utilities are accustomed to a certain level of public resistance, but for Northern Pass the outcome of the proposal is in doubt, and it wasn't supposed to be this difficult. Industry insiders report growing impatience on the part of Hydro-Quebec. The timeline for the project has been set back by at least a year—more likely a decade—as determined landowners with the means to fight in court assert their rights. PSNH has not been able to deliver public acceptance of a transmission corridor to its corporate parent.

Given that the proposed route is in question, the Presidential Permit process is in limbo as DOE held open the public comment period indefinitely and suggested that a new set of public hearings would be held once a preferred route is identified. The Forest Society has repeatedly called on the Northern Pass partners, Northeast Utilities/PSNH, NStar, and Hydro-Quebec, to withdraw the Presidential Permit application.

The Forest Society maintains that while there may be a way to bring Hydro-Quebec power to the southern New England market, the initial Northern Pass proposal is deeply flawed and clearly not wanted by the majority—reason enough to warrant re-thinking. A more thoughtful approach would be to acknowledge the deep public opposition to the initial proposal by withdrawing it and working toward consensus on an alternative more in line with New Hampshire values. ♯

FOR MORE INFORMATION

To learn more about the proposed Northern Pass project, visit the following websites:

Alliance Against Northern Pass

www.nonorthernpass.org/nh

Bulldog Live/Brian Tilton 107.7 FM

www.briantilton.com/NorthernPass.html

Bury the Northern Pass blog

<http://burynorthernpass.blogspot.com>

Conservation Law Foundation

www.clf.org/northern-pass

Forest Society's Northern Pass Initiative and Blog

www.forestsociety.org/np

Live Free or Fry

www.livefreeorfry.org

New England Power Generators Association

www.nepga.org

Official Northern Pass website

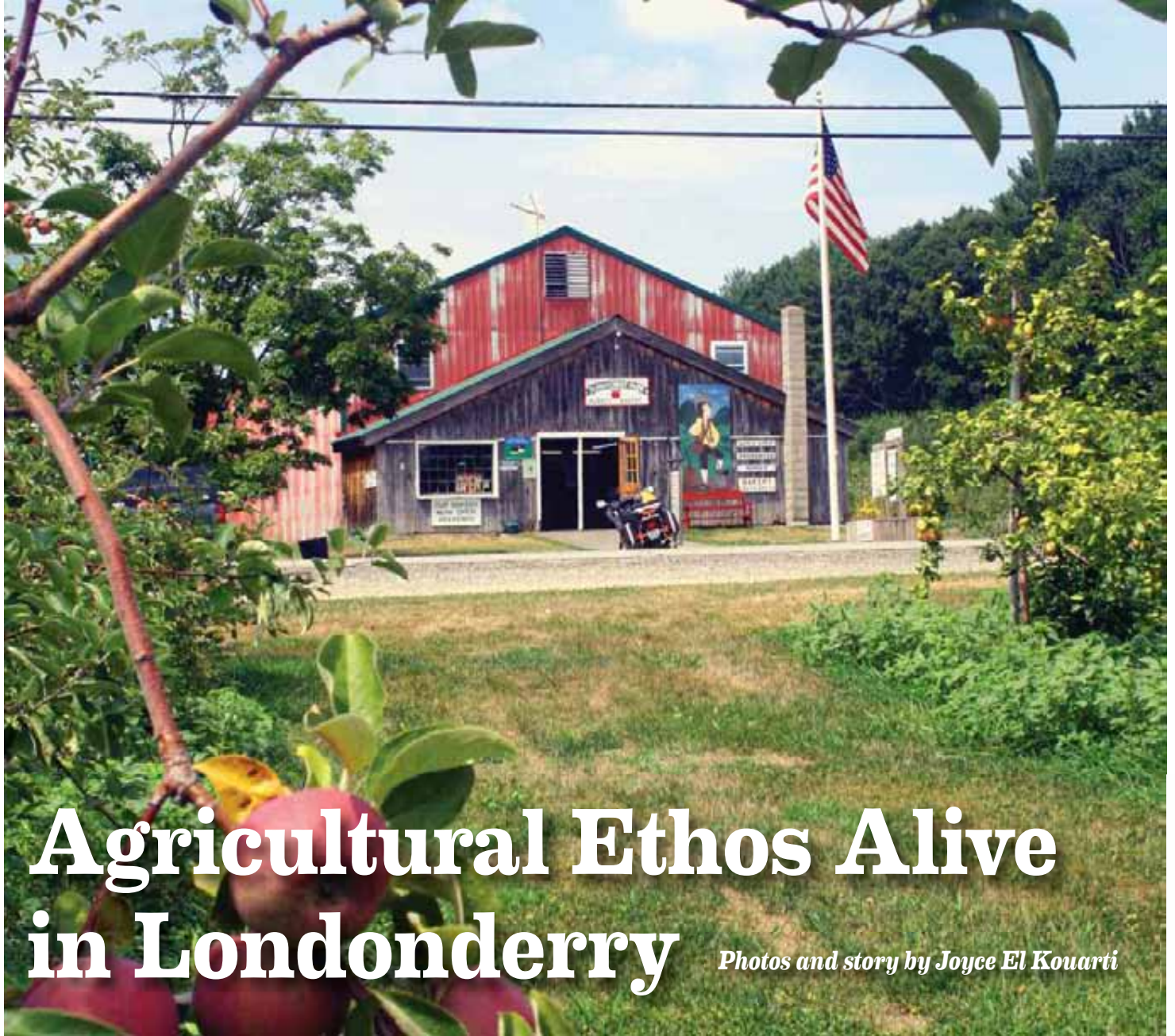
www.northernpass.us

Responsible Energy Action LLC

<http://responsibleenergyaction.com>

U.S. Department of Energy Environmental Impact Statement

www.northernpasseis.us



Agricultural Ethos Alive in Londonderry

Photos and story by Joyce El Kouarti

Several years ago, the Hicks family had the opportunity to sell their 81-acre farm in Londonderry to a developer. Instead, they chose to protect their land with a conservation easement.

“Some people get it right away,” said owner Dan Hicks. “Other people wonder why you’d pass up the chance to be a millionaire.”

Rich Soils and History

Sandwiched between the cities of Manchester and Nashua, Londonderry has been under intense development pressure for more than a decade. Settled in the early 1700s, this community was one of New Hampshire’s first inland settlements along the Merrimack River. The town’s early residents discovered a land rich in fertile soils and abounding in butternuts, black walnuts, chestnuts, oak and hickory. They introduced apple trees to their new community, and by the 1800s apples had become the major crop of many local farms. By 1976 Londonderry apples were being shipped throughout the United States, Canada, the British Isles, Brazil, and Venezuela.

Throughout the late 1990s and early 2000s, hundreds of acres of the town’s farmland were lost to residential and commercial development. In response, the community initiated a coordinated effort to conserve its remaining farms and apple orchards. By 2010, more than 4,000 acres had been protected, including three apple orchards. Two of these were later incorporated into Londonderry’s Apple Way, a designated New Hampshire Scenic and Cultural Byway that winds past orchards, old farmhouses, and local landmarks, reminding residents and visitors alike of the community’s agricultural heritage.

But the farms and orchards along the byway exist today only because landowners like Dan Hicks and his family have made the conscious decision to preserve their land and lifestyle rather than make a quick profit by converting their heritage into marketable real estate.

“My father and uncle had the chance to sell this land for a housing development,” said Dan. “But they chose the conservation way.”



The key to the farm's success has been its diverse crops, including — but not limited to — the apples, lettuces, and Christmas trees shown here.

A Family Legacy of Conservation

Owned and operated by Dan Hicks and his wife Kelley, Sunnycrest Farm has been in Dan's family for three generations. Dan has worked on the farm all his life and has been its manager for the past 11 years.

"I was driving tractors with my father when I was 12 years old," he said. "I knew the men and women who worked here. I loved it."

His grandfather Al Conner purchased Sunnycrest in 1943. In the early years, he raised chickens as well as fruits and vegetables. In the 1950s, he began to expand, adding more acreage to accommodate the ever-increasing apple production, which reached its heyday during the 1970s and early 80s. He worked the farm for years before passing it to his son John Conner, who ran the farm with his brother-in-law, Dan Hicks Sr., who then passed it to present owner Dan Hicks Jr. and his wife five years ago.

Dan Hicks Sr. and John Connor also owned other farms in the state. They placed their first conservation easement on Carter Hill Orchard in Concord in 2001, selling the farm to their longtime manager at that time.

"My father and uncle were both brought up in farming communities and had a real relationship with the land," said Dan. "My father was on the Londonderry Conservation Commission, and my uncle John worked at the Rockingham County Conservation District."

Dan Sr. and John worked with the Rockingham County Conservation District to conserve Sunnycrest in phases between 2002 and 2004. By selling the development rights, the family was able to pay off all the debt on the property.

"I've seen many farms fail because of debt," said Dan Jr. "By conserving Sunnycrest Farm, we were able to start with a clean slate."

A Diverse Produce Portfolio

Sunnycrest Farm has always sold pick-your-own apples, blueberries, and strawberries. Since the 1980s and 90s, the farm has varied its offerings to include grapes, vegetables, and flowers. Sunnycrest also does a brisk mail order business for apples, even during the winter.

"Over the years we diversified to meet the needs of our customers," said Dan. "In 1997, we added a bakery. My uncle John's breads and cookies, made from scratch right on the farm, are still very popular."

Sunnycrest has been selling its produce to local and regional supermarkets, including Shaws, Hannaford, EM Heath in Center Harbor, McKinnon's in Salem, for more than 20 years. "We try to get our products to stores on the same day," said Dan. "We sell a lot of our goods wholesale as well."

The farm also offers a few varieties of heirloom vegetables grown from seeds that originally came to the New World on the Mayflower. Chefs from area restaurants come in to purchase the produce, particularly unique items like round 'eight-ball' zucchini and heirloom tomatoes. Dan maintains that although the heirloom tomatoes may look funny, the flavor more than makes up for any irregularities in appearance.

"They are incredibly sweet," he said. "They're ugly, but the taste is amazing."

The farm not only sells produce, but also apple wood and Christmas trees. In addition, Sunnycrest Farm operates a woodlot with about 15 acres of pine, which is harvested sustainably. The most recent harvest was last fall.

Along with the rewards, farming also includes its challenges, including crop failure, drought, and flooding. Dan Jr. maintains that the key to their success so far has been crop diversity, along with the family's willingness to keep experimenting.

"It's important to have different things," he said. "We try to do a little of all of it, and do it correctly."

Sunnycrest employs a work force of family and friends, who return year after year to staff the pick-your-own stands, work in the farm market, and pack produce out back.

"Most have been working here through high school and college," he said. "All my aunts and uncles have worked for me."

For the Long Haul

Farming for the Hicks family is not only about making a living, but also the quality of living. Dan and Kelley have three children, ages 11 through 17, all of whom help out on the farm today, and all of whom plan to continue working on the farm when they are older.

"It's about enjoying our family and the work that we do," said Dan.

He is quick to point out that farming is a time-consuming vocation and not always the first choice among a generation that today has a range of professional opportunities to pick from.

"It's different for this generation" he said. "In the old days, you didn't have any other options."

"There's not a lot of money in it. But there's something about walking out your front porch and looking out on your grandfather's land and knowing that it's still yours." ♪

Consulting Foresters

The Forest Society encourages landowners to consult with a licensed forester before undertaking land management activities. The following are paid advertisers.

FEATURED FORESTER:

Jon Martin

Martin Forestry Consulting, LLC

Jon Martin started Martin Forestry Consulting, LLC this past spring after working in forest consulting for 10 years. He began his career with FORECO, where he initially worked as a forest technician before becoming a field forester. In this capacity he gained extensive experience performing timber cruises, appraisals, and harvests, as well as working on timber stand improvement projects and forest management plans.

Martin Forestry Consulting, LLC works in Belknap, Grafton, Merrimack, and Carroll counties and offers complete forest management services including management of timber sales, cruises, and appraisals, timber stand improvement projects, and wildlife habitat management. As a certified Technical Service Provider for the Natural Resource Conservation Service (NRCS), Martin is able to write forest management plans for landowners with NRCS cost-share funding.

He also does urban forestry consulting, including tree pruning and take-downs, as well as tractor-based work such as field mowing and stump grinding to maintain permanent wildlife clearings. "I want to be able to help my clients whether it is managing a large woodlot or pruning a tree in the backyard," he said. "My goal is to help landowners understand the dynamics of their forests, and bring the property to the fullest potential of the landowner's goals."

Martin became a forester because of his passion for land conservation and his understanding that working woodlots managed with sustainable forestry are one of the best ways to help conserve open space. He is the proud owner of his own protected woodlot in Bridgewater, NH, which he protected last year with a conservation easement held by the Forest Society. In addition to managing the land for timber, wildlife, and forest regeneration, Martin has also created some permanent wildlife openings.

Martin's advice for landowners is to use the resources that are available to them to educate themselves about their land and forests. "We have wonderful people working at Cooperative Extension, and I encourage landowners to meet with their county forester to learn about the resources in our state." He also emphasized that it is important to find a consulting forester with whom one can have a long-term relationship to manage the forest for the present and the future.

Martin sits on the boards for the NH Timber Harvesting Council, the Belknap County Conservation District, the Newfound Lake Region Land and Watershed Committee, and the Belknap County Farm Bureau.



Corwin and Calhoun Forestry, LLC

Realize what you value the most in your forest. Serving individual, municipal, state, non-government, and industry forest owners.

41 Pine St., Peterborough, NH 03458 • (603) 562-5620 (preferred)
Cell (603) 924-9908 • Email: swiftcorwin@gmail.com

The Ecosystem Management Company

Jeremy Turner, Licensed forester

A division of Meadowsend Timberlands Ltd.

Comprehensive forest and wildlife management, serving the conscientious New Hampshire-Vermont landowner. FSC-certified management.

P.O. Box 966, New London, NH 03257

Phone (603) 526-8686 • Fax (603) 526-8690

Email: jgturmer@tds.net

FORECO: Forest Resource Consultants

Complete forest management services

Offering three licensed foresters, licensed land surveyor

P.O. Box 93, Rumney, NH 03266 • (603) 786-9544

P.O. Box 161, Contoocook, NH 03229 • (603) 746-4846

Fountains America

Certified forest management, land brokerage, GIS maps, training, application development, and TwoDog Forest Inventory Software Sales.

175 Barnstead Rd., Suite 4

Pittsfield, NH 03263 • (866) 348-4010

Ben Hudson, Hudson Forestry

Providing an integrated, long-term management approach, specializing in woodscape design and construction.

P.O. Box 83, Lyme, NH 03768 • (603) 795-4535

Email: ben@hudsonforestry.com

Martin Forestry Consulting, LLC

Offering complete forest management services including timber sales, cruises, and appraisals and wildlife habitat management.

P.O. Box 89, New Hampton, NH 03256 • (603) 744-9484

Email: martinforestry@gmail.com

FEATURED ART EXHIBIT

This exhibit can be viewed Monday thru Friday from 9 am to 5 pm at the Conservation Center Conference Room, located at 54 Portsmouth Street in Concord, NH. As the Conference Room is used for meetings, please call (603)224-9945 before visiting to confirm that the room is open.

NOVEMBER 1 – DECEMBER 30

Alicia Drakiotes and Sienna Merrifield Giffin



Golden Hour on Linen
by Alicia Drakiotes

Marlborough artist Alicia Drakiotes has lived in New England her entire life and finds inspiration in the beauty of open fields, quiet forests, rocky coastlines, old barns, and aging automobiles. Working primarily in pastel and oil mediums, she uses color, painterly techniques, and sensitivity to subject matter to portray the sense of place and feeling that she interprets from her subjects. "My creative process is most often motivated by specific landmarks and the nature surrounding it," she said. "I try to relay to the viewer the joy, wonder, color, and the force of nature that surrounds us in my work." She received a BA in Visual Communications in 1987 and began her full time art career in 2003.



Winter Monadnock by Sienna Merrifield Giffin.

Sienna M. Giffin is a fourth generation artist originally from Harrisville who has been painting for nearly 25 years. She studied under the guidance of her late mother Lenoria Merrifield, an accomplished oil painter in her own right, then later under Monadnock area artists including Peter Granucci. "Painting allows me to reveal the softness and quiet of my surroundings and share the unique characteristics of the landscape," she said. She has taught art to children and teens at the Moco Arts of Keene for five years and also ran off-site resident art programs for seniors and Alzheimer's patients. She is currently opening The Brick Mill Center for Art in Harrisville, NH.

The Forest Society thanks the following businesses for their generous support.

Summit Circle

(\$5,000 and up)

Camp Pemigewasset, Inc.
Normandeau Associates, Inc.
Bruss Construction, Inc.

Chairman's Circle

(\$2,500 to \$4,999)

EOS Research Ltd.

President/Forester's Circle

(\$1,000 to \$2,499)

Cambridge Trust Company
Grappone Management Co., Inc.
Lyme Northern Forest Fund, LP
McKinsey & Company
NH Conservation Real Estate
R. M. Piper, Inc.
Rockywood-Deephaven Camps, Inc.
St. Mary's Bank
Van Berkum Nursery, LLC
White Mountain Attractions Association

Steward

(\$750 to \$999)

Durgin & Crowell Lumber Co., Inc.
Mulligan Land & Timber
Pinetree Power, Inc.
Wendell Veterinary Clinic

Partner

(\$500 to \$749)

Benthien Associates
Capitol Craftsman, LLC
Devine, Millimet & Branch, P.A.
E & S Insurance Services, LLC
Garnet Hill Inc.
Kel-Log, Inc.
McLane, Graf, Raulerson & Middleton
Meadowsend Timberlands, Ltd. Ptn.
Northeast Delta Dental
Orr & Reno Professional Association

Plodzick & Sanderson
Precision Lumber, Inc.
Russound
Southern New Hampshire University
Sunset Park Campground
H.G. Wood Industries, LLC

Colleague

(\$250 to \$499)

A Tree Health Company, Inc.
Carlisle Wide Plank Floors, Inc.
Clearcut FX
Forest Land Improvement, Inc.
The Flying Goose Brew Pub and Grille
Great Brook Forest Products
Hession & Pare, P.C. CPA's
Morgan Stanley
Moore Center Services, Inc.
Nathan Wechsler & Company
Northland Forest Products, Inc.
Polly's Pancake Parlor, Inc.
Prince Communications
Seaboard International Forest Products, LLC
Woods Without Gile, LLC

Matching Gift Companies

American International Group
Autodesk, Inc.
Bank of America
Gartner
Houghton Mifflin Matching Gift Program
International Business Machines Corporation
Lincoln Financial Group
Long Term Care Partners
Markem-Image Corporation
McKinsey & Company
Oracle Corporation
Open System Resources, Inc.
Prudential Matching Gifts Program
Saint-Gobain Corporation
Tender Corporation
Tyco Matching Gift Program



And many thanks to those businesses who give less than \$250.

The Forest Society... Where Conservation and Business Meet

For information on business memberships,
please call Susanne Kibler-Hacker at (603) 224-9945.



This newly-protected land on Crotched Mountain extends and connects existing conserved land. Photo by Joyce El Kouarti.

Fracestown Protects 500 Acres on Crotched Mountain

By Brian Hotz

In partnership with the Forest Society, the Town of Fracestown's Conservation Commission has protected another 509 acres on Crotched Mountain.

For more than 20 years, the Town of Fracestown has been acquiring land on the mountain, including the now-defunct Crotched Mountain East ski area and lands formerly owned by housing developers. The Town intends to permanently hold these properties for conservation and recreation and wished to ensure their permanent protection with a conservation easement. These newly-protected lands extend and connect existing conserved

land on Crotched Mountain, wrapping around the north, east, and south-facing slopes of the eastern summit.

In 1989 and the 1990s the Town purchased and conserved more than 650 acres abutting this easement to the south. And in 2003, the Forest Society accepted a conservation easement on land to the northwest that included the Crotched Mountain (West) Ski Area.

"On behalf of the Conservation Commission, we are pleased to see the project finalized and are grateful to the Forest Society and the Fracestown voters for making it possible," said Betsy Hardwick, chair of the

Fracestown Conservation Commission and member of the Select Board. "Visible from every corner of town, Crotched Mountain is a local icon. The area is important not just for its valuable wildlife habitat, but also for aesthetic, historic, cultural, and even spiritual reasons.}

"We are so pleased to continue our conservation partnership with the Town of Fracestown with this exciting project," said Forest Society President/Forester Jane Difley. "We have been working with them for two decades to protect the land on and around Crotched Mountain."

Most of the remaining unprotected land

*“Visible from every corner
of town, Crotched Mountain
is a local icon.”*

— Betsy Hardwick,
Francestown Conservation
Commission Chair

on Crotched Mountain — the westerly and southerly slopes — is owned by Crotched Mountain Rehabilitation Center, which is working with the State of New Hampshire and the Trust for Public Lands to secure a Forest Legacy easement on some 1,400 acres.

Most of the recently conserved land is forested with hardwoods and white pine, as well as some spruce and fir in the higher elevations. About 250 acres of the southerly block is managed Town Forest. The former ski trails are overgrown with thick brush, providing excellent habitat for ruffed grouse, snowshoe hare, migrating songbirds, and other upland wildlife.

The Town is granting permanent public access for non-motorized recreational use for the general public and is also considering allowing snowmobile use. The easement lands include the eastern summit of Crotched Mountain, valued for its hiking and scenic views. Several maintained footpaths cross the easement property and lead to the ridgeline. The Town intends to continue to use the area for non-commercial passive recreation, including hiking, hunting, and mountain biking.

The Town is retaining the option to operate a commercial ski area within certain portions of the easement land. Within this area, the Town or its lessee would be allowed to construct, maintain, and use ski lifts, trails, storage sheds, fuel storage facilities, snowmaking facilities, and similar improvements for ski area use under reserved right terms. However, this reserved right would be only for the Town’s use. ♯



The conserved land includes the eastern summit of Crotched Mountain, valued for its hiking trails and scenic views. Photo by Joyce El Kouarti.



Left: Three generations of the Eccardt family in front of the farm store. Photo by Jed Schwartz.



Right: Eccardt Farm looking across to easement property. Photo by Jed Schwartz.

Washington Protects Eccardt Farm's Woodlot

By Brian Hotz

The Forest Society recently partnered with the Town of Washington Conservation Commission to protect a 141-acre woodlot owned by Eccardt Farms, Inc.

"This farm truly defines East Washington's unique rural character," said Washington Conservation Commission Chair Carol Andrews. "The Forest Society provided assistance in all areas of the project, including negotiating the terms of the easement, grant writing, baseline documentation, and field work."

Eccardt Farms had been recognized as a "Farm of Distinction" by the State of New Hampshire. As the last working family dairy farm in the Town of Washington, this is a destination farm for visitors to view exotic animals, shop in the farm stand, and tour the land.

Although owned and operated by Eccardt Farm, Inc., the farm is managed by George and Sandy Eccardt and their son Ryan. The Eccards have always welcomed the public on the entire farm for educational and recreational purposes. Hundreds of families and school groups come each year, many from towns in the three-county area and

beyond, to learn about dairy farming and visit the farm store, milking parlor, barns, the large variety of animals, and the farm museum. The easement land has been used by the public for hiking, horseback riding, skiing, snowshoeing, and snowmobiling for more than fifty years, and now that the land is protected, continued public access is guaranteed.

Although the appraised value of the easement was \$133,000, the Eccardt family agreed to a bargain sale of almost half that amount. The Washington Conservation Commission applied for and was awarded grants from both Land and Community Heritage Investment Program (LCHIP) and the Quabbin-to-Cardigan (Q2C) grant program. The Forest Society holds the primary interest in the conservation easement, with LCHIP and the Town of Washington holding back-up interests.

The easement adds significant acreage to an already substantial collection of conservation lands. The land abuts the Forest Society's Journey's End reservation, which in turn connects to Pillsbury State Park.

The newly conserved area includes

forested uplands with a significant stand of sugar maples that are managed for the farm's sugar operation. The forestland is well managed and has high wildlife habitat value with approximately 20 acres of Tier 1 habitat identified in the New Hampshire Department of Fish and Game's Wildlife Action Plan. The property's wildlife habitat is enhanced by more than 4,000 feet of first order streams and two forested sphagnum bogs.

"All in all, this was a great project with a wonderful family working to pass an active dairy farm down to the next generation," said Forest Society Senior Director for Strategic Projects – Land, Brian Hotz. "The Conservation Commission members were wonderful to work with and more than capable fundraisers for this project." ♪

Subscribe to our monthly e-newsletter and stay up-to-date with what's happening at the Forest Society and in the New Hampshire conservation community.
www.forestsociety.org/news

Forest Society Helps to Fill Gap in WMNF

By Ryan Young

The Forest Society recently purchased 35 acres of land in Hart's Location from Verlene Hamilton. Ms. Hamilton inherited this land from her father, Verland Ohlson, a district ranger for the White Mountain National Forest (WMNF) for some 23 years. Abutting the White Mountain National Forest's scenic railroad, the property fills a gap in WMNF ownership.

"Ms. Hamilton would like this land to become part of the White Mountain National Forest in honor of her father," said Forest Society President/Forester Jane Difley. "The Forest Society intends sell to the land to the federal government in accordance with her wishes."

She was willing to sell the land to the Forest Society at a bargain sale of \$90,000. The Forest Society used its Environmental Loan Fund (ELF) to facilitate the purchase



This recently protected land includes nearly two-thirds of a mile of frontage along the Saco River.
Photo by Ryan Young.

and resale of the property. The ELF was established by the Forest Society to acquire, protect, and preserve open space.

Highly visible from Route 302, the property includes nearly two-thirds of a mile of frontage along the Saco River, providing

excellent access to the river for anglers and boaters. With several wetlands and a small brook draining into the Saco River, the entire property is ranked among the best habitat in the state by the NH Department of Fish and Game's Wildlife Action Plan. ♪



Several cellar holes and stone walls from the original Monson Village remain.
Photo by Jack Savage.

Monson Center Grows

By Brian Hotz

The Forest Society recently purchased a small parcel of land in Milford abutting the organization's Monson Center Reservation. In 1994 the Town of Milford took this 11-acre parcel of land for back taxes. Earlier this year the town approached the Forest Society with an offer to sell the land at a discounted rate with the understanding that it be added to the Monson Center Reservation.

The Town was a major supporter of the Forest Society's efforts in 1998 to acquire the land that subsequently became Monson Center.

One of New Hampshire's first inland towns, Monson Village was settled by Europeans in 1737 and originally covered more than 17,000 acres in what is now Milford and Hollis. The settlers farmed the land, traded commodities grown there, and continued to live on the land until the village was disbanded in 1770 and absorbed into the surrounding towns. The center of town, main roads, and several foundation holes remain.

Monson remained undisturbed for more than 220 years. In 1998 it was threatened by a 28-lot subdivision that would have destroyed its natural and historic beauty. A successful grassroots campaign to save the property was initiated by local residents, who enlisted the help of the Forest Society, the State Division of Historical Resources, and Inherit New Hampshire. The Forest Society purchased the land, and 10 years later neighbors Russ and Geri Dickerman donated 125 acres of their own land to add to the Monson Reservation. The couple continued to care for Monson Center, although regrettably, Geri passed away in 2008.

The Forest Society oversees the stewardship of Monson Center's rolling fields, beautiful forests, walking trails, and historical artifacts.

To learn more about Monson Center or to obtain a map of its trails, visit the Forest Society's Online Guide to Our Lands at www.forestsociety.org/ogol. ♪



The alternative route for the proposed Northern Pass project would pass through Humphrey's property, shown here in the foreground. Photo by Joyce El Kouarti.

Historic Chichester Homestead Protected

By Mike Speltz

It was June 9, 2011—a dark and stormy afternoon. Tornado warnings had been issued. However, Patty Humphrey braved the approaching storm and made her way to the Forest Society on a mission that could not wait. Huddled inside the Forest Society Board Room, with the sky growing ever darker, the indomitable Humphrey and Forest Society President/Forester Jane Difley granted and accepted a conservation easement on 141 acres in Chichester.

Why the urgency? Because this long-contemplated gift coincided in time with the original comment period for the proposed Northern Pass high-voltage transmission project. Patty wanted the Department of Energy to know, in no uncertain terms, that the alternative route for the project through Chichester would require not only a forced taking of her land, but also the partial extinguishment of a conservation easement. That message has been delivered and duly recorded.

The easement covers two tracts of nearly contiguous land. The northern tract has a

small field along Horse Corner Road that serves as foreground for the rising terrain above it. Nestled on the steeply sloped hillside is an unusual elevated wetland perched between two folds of the hill. Nearby is a convenient deer yard of mature hemlocks. At one time this parcel was a part of the sixth largest chicken farm in New Hampshire; the old farmhouse can still be seen on the opposite side of the road. This tract directly abuts conserved land owned by neighbor Joe Drinon, which, in turn, is only a few hundred feet removed from the Humphrey's southern tract.

The Humphrey homestead, one of the oldest residences in Chichester, sits atop Garvin Hill. The numerous stone walls on the property attest to its earlier history as a hilltop farm, ideally suited for grazing sheep and supplying the nearby mills in Manchester.

While the name "Humphrey" may remind most of one of New Hampshire's distinguished former senators, it is also associated with Patty Humphrey, Master

Gardener. Her beautiful gardens lie just north of the easement's southern tract; the natural and the cultured landscapes complement each other. This southern tract lies on the ridge separating the Suncook and Soucook watersheds, thus contributing to the quality of the headwaters of both rivers. The dominant landform is a high, steep hill at the center of the property that exhibits the savannah-like characteristics of a rocky ridge plant community. The terrain falls off to wetlands on the northeast and rich mesic woods to the south, thus creating a great deal of habitat diversity in a relatively small area. The Chichester Town Forest abuts this land.

Altogether, the Humphrey's easement, the Drinon easement, and the Town Forest create a nearly contiguous block of roughly 450 protected acres.

Patty believes more public good comes from preserving these open spaces than from constructing power line towers and clearing a wide swath of trees through the heart of these lands. ♪

Conservation Stewardship Transfer Fees — Gifts That Keep on Giving

By Paul Doscher

The gift of land or an easement is, for the donor, something of an end point. It can end their worry that their land might sometime in the future be developed. But for the Forest Society, the completion of the gift is just the beginning of a long-term, unwavering responsibility to the land. Easements must be monitored and enforced. Land given to the Forest Society must be carefully managed. These unwavering commitments to the stewardship of the land are obligations entered into cautiously because they bring costs that are a permanent obligation.

With 170 reservations owned by the Forest Society and more than 750 conservation easements, these costs are substantial, and they only grow as we conserve more land.

Today, the Forest Society asks donors and friends to provide stewardship funds when we acquire new reservations. We ask easement donors and our conservation partners to contribute to our Easement Stewardship Endowment when we accept their easement. But in our earlier years, we often didn't seek stewardship funds, and sometimes what we asked for has proven to be insufficient as time passed and responsibilities increased.

Now there is an easy way for past donors, friends, and neighbors of conservation land to help fill the stewardship funding gap without writing a check today. The tool has been tested by other land trusts in the west and in Massachusetts, and the Forest Society has just published a report that describes how it's done. The report, co-authored with Attorney Thomas Masland of Ransmeier and Spellman, a noted land conservation expert, is titled *Conservation Stewardship Transfer Fees*.

If you own land under a conservation easement or live next door to Forest Society conservation land, you can create a Conservation Stewardship Transfer Fee agreement. This agreement puts a provision in your easement or the deed of your land that provides a small percentage of the proceeds



This new publication outlines a strategy for funding the ongoing stewardship of conservation properties.

when your land is sold be contributed to the Forest Society's stewardship endowments.

For example, if you own property next to a Forest Society reservation, you and your property benefit from the proximity and access to conservation land. The law provides that when there is this benefit, you can create and attach a "transfer fee" to your deed. That fee is specifically dedicated to the stewardship of the conservation lands—including the parcel that's your neighbor—in recognition of the benefits that conservation land provides to you and your property.

Over time, every sale of the land will further support the stewardship of conservation lands. Most of these agreements exempt transfers of the land within families.

If you would like to know more about Conservation Stewardship Transfer Fees, you can download a copy of the report from the Forest Society web site at <http://clca.forestociety.org/pdf/conservation-stewardship-transfer-fees.pdf> or contact Paul Doscher at (603)224-9945 or pdoscher@forestociety.org.

GET READY FOR THE HOLIDAYS WITH THE ROCKS!



Mail order your farm-fresh Christmas tree, handmade holiday wreath, one-of-a-kind ornaments, and more from The Rocks Estate!

All sales proceeds support the Forest Society's land conservation efforts in New Hampshire.

VISIT

www.therocksgiftshop.com

OR CALL

(603) 444-6228

OR SCAN

This mobi tag with your cell phone to start shopping!





Left: Beavers created this wetland on the McCandlish land, which today provides important habitat for a wide range of species.



Right: One of the many small but beautiful waterfalls that cascades over granite boulders on Meg Fearnley's land.

Friends Conserve 476 Acres in Bradford

Story and photos by Beth McGuinn

Friends often share some values and life goals, but it is uncommon when friendship leads to the simultaneous conservation of important land. Recently, Brooks McCandlish, his wife Janet Sillars, and their good friend and neighbor Meg Fearnley donated two conservation easements conserving 476 acres in Bradford to the Ausbon Sargent Land Preservation Trust with the hope of inspiring their neighbors to take similar action.

Conservation commitment and love for the land runs deep among these friends. Brooks is a licensed forester, tree farm inspector, and conservation commission member; Janet is a gardener, shepherd, and sheep dog trainer; and Meg is a conservation commission member and Bradford's librarian.

Their lands lie at the headwaters of the Hoyt Brook and West Branch Brook watersheds, both properties playing host to the cyclical antics of beavers. Brooks and Janet now have a lush green meadow where a beaver pond held water just a few years ago. Meg coexists with the beavers, who regularly

flood her driveway. In both instances, the beavers' activities create important wildlife habitat for a wide range of species dependent on one or another of the wetlands created. Below Meg's beaver dam are a series of small but beautiful waterfalls tumbling over smoothed granite boulders and framed by graceful hardwood trunks and branches.

Brooks manages both properties for a variety of wood products, with a focus on improving the quality of the wood left after the harvest. Tall straight pine and wide trunked hardwoods share these woods with pine saplings released from the shade of overstory trees and hardwoods basking in the sunlight of recent thinnings.

Multi-horned heritage Jacob's sheep live on both properties. Brooks and Janet's pastures are home to as many as 60 sheep and lambs each year, raised for wool and meat. Special ewes, retired from breeding, go to Meg's, where they share barn and pasture with a retired horse.

It is fitting that these friends, whose land shares wild and domestic animals and the

roots of important Bradford brooks, chose to conserve their lands at the same time — for their sheep, beavers and other wildlife, water quality, and to allow the continued management of the forest. These newly-conserved properties of forest, pasture, and beaver meadows lie just east of the Pillsbury-Sunapee highlands and join the largest block of conserved land in southern New Hampshire — now over 21,000 acres with the addition of these two properties.

Brooks said, "I'm very grateful that Ausbon Sargent is willing and able to accept the responsibility to monitor and enforce our easements, to ensure the land continues to be open as forest farmland into the future." He, Janet, and Meg have given a tremendous gift to future generations. ♯

Beth McGuinn is a Land Protection Specialist with the Ausbon Sargent Land Preservation Trust, which works to preserve and protect the rural character of the Mt. Kearsarge/Lake Sunapee region. For more information, visit www.ausbonsargent.org.

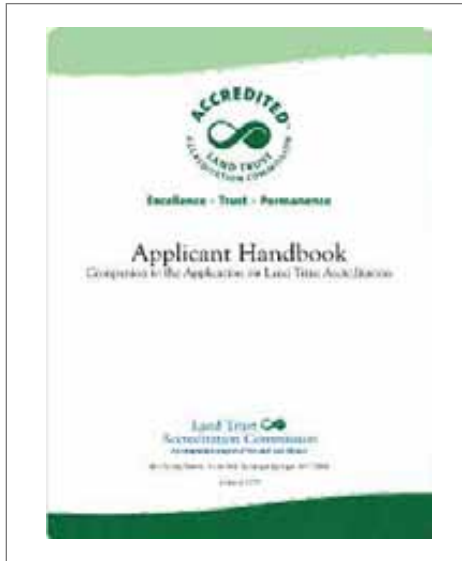
Forest Society Invites Public Comment for LTA Accreditation

The Land Trust Alliance (LTA) is a national convener, strategist, and representative of more than 1,700 land trusts across America. Recognizing the importance of public confidence in land trusts, the LTA established formal Standards and Practices in the 1980s. The Forest Society was one of the earliest adopters of these standards. In 2004, these Standards and Practices were updated, and again, the Forest Society's Board of Trustees voted to accept the revised Standards and Practices as the ethical and technical guidelines that would govern the organization's responsible operation.

Most recently, the LTA directed the Land Trust Accreditation Commission to establish a system of accreditation that recognizes land conservation organizations that meet national quality standards and have systems in place to protect important natural places and working lands forever.

The Forest Society has chosen to participate in this voluntary accreditation program. Accreditation provides the assurance of quality and permanence and is essential for building public confidence in land conservation.

"The Forest Society has been a long-time



member of the Land Trust Alliance and a supporter of its efforts to promote the pace and permanence of land conservation," said Forest Society President/Forester Jane Difley. "We are excited to embark on the accreditation process and anxious to join other land trusts that have chosen to seek this seal of approval from the Land Trust Accreditation Commission."

An independent program of the LTA,

the Land Trust Accreditation Commission conducts an extensive review of each applicant's policies and programs. As part of the review process, public input is invited.

The Commission will accept signed, written comments from the public through December 30, 2011. Comments must relate to how the Forest Society complies with the national quality standards that address the ethical and technical operation of a land trust. The full list of standards is available at www.landtrustalliance.org/training/sp.

If you would like to comment on the Forest Society's application, you can fax your comments to the Land Trust Accreditation Commission at (518) 587-3183 or mail them to:

Land Trust Accreditation Commission
Attn: Public Comments
112 Spring Street, Suite 204
Saratoga Springs, NY 12866

You can also submit comments online at www.landtrustaccreditation.org.

If you have questions about the accreditation process, please contact Paul Doscher at (603) 224-9945. ♻

Conservation Alliance and EMS Support New Hampshire Conservation Efforts

One of the country's premier private investors in land conservation efforts is now paying attention to our corner of the nation, thanks in part to a major commitment from Eastern Mountain Sports (EMS), a NH-based outdoor retailer.

The Conservation Alliance was founded in 1989 by industry leaders REI, Patagonia, The North Face, and Kelty with the goal of increasing outdoor industry support for land conservation efforts. Today the Alliance includes more than 175 member companies, including EMS.

The Alliance disburses its collective annual membership dues to protect threatened wild habitat, especially where outdoor enthusiasts recreate. Since its

founding, the Alliance has pledged over \$9 million to conserve more than 50 million acres of land throughout North America.

Since becoming involved with the Conservation Alliance in 2007, EMS has contributed more than \$4 million to further the efforts of the Alliance. In 2011 EMS increased its annual membership to the Pinnacle level of \$100,000+.

"We're committed to conservation and to the Alliance in the biggest possible way," said EMS's Executive Vice President Ted Manning, who joined the Conservation Alliance Board of Directors in 2010. "The Conservation Alliance enables EMS to combine our philanthropic dollars with the financial contributions of our peers in the

outdoor industry to ensure that our conservation efforts are as effective and efficient as possible."

By the end of 2011, the Conservation Alliance will distribute another \$1 million to conservation projects throughout North America – including Mount Monadnock here in New Hampshire.

The Conservation Alliance and EMS have granted \$25,000 to kick off the Forest Society's latest effort to protect land on the lower slopes of Mount Monadnock. The Monadnock project was nominated by Jet-Boil, an outdoor stove manufacturer based in Manchester, NH. For details about the Forest Society's ongoing Monadnock campaign, turn to page 28 of this magazine. ♻

Final Federal Spending Package Impacts Conservation Programs

By Chris Wells

Six months after the federal fiscal year officially began, Congress at last approved a FY11 federal spending bill in April. The final deal came only after six short-term Continuing Resolutions and the threat of a government shutdown. The final FY11 spending agreement eliminated all congressionally-directed spending, or “earmarks”, and included significant cuts to domestic spending programs. Land conservation was no exception.

The final spending agreement cut funding for the Land and Water Conservation Fund (LWCF) — the country’s primary federal conservation funding program — by one-third, from the \$450 million to \$301 million. While the cuts to LWCF were severe, the final number was much less draconian than the \$58 million allocation proposed by the House of Representatives, which would have effectively eliminated funding for any new projects in 2011. With a deal finally done for FY11, Congress immediately turned its attention to the FY12 budget, which began on October 1.

NH Congressional Delegates Lead on LWCF

Even as Congress debated cuts to the LWCF in FY11, New Hampshire’s congressional delegation went on the record in

support of LWCF as a priority going forward. Congressman Charles F. Bass organized a bipartisan letter, signed by 150 Republican and Democratic members, to the House Appropriations Subcommittee on Interior, Environment, and Related Agencies urging the subcommittee to ensure sufficient funding for the Land and Water Conservation Fund in the FY12 appropriations process. Despite the current budgetary environment, it was the most well-supported LWCF “dear colleague” initiative ever attempted in the US House. Congressman Frank Guinta joined Congressman Bass as one of the letter’s Republican signers. In the Senate, US Senator Jeanne Shaheen led a similar letter to senate appropriators. Senator Kelly Ayotte was one of the letters 39 signors.

“It is heartening to see our Congressional delegation upholding New Hampshire’s proud bipartisan tradition of support for conservation,” said Forest Society President/Forester Jane Difley.

New Funding Sought for Q2C

The Forest Society is working to find new federal funding to continue a popular and cost-effective land conservation grants program in the Quabbin-to-Cardigan (Q2C) region of western New Hampshire.

Launched in 2009, the competitive program funds transaction costs like surveys, appraisals, legal review, and other expenses. These nuts-and-bolts costs can be substantial and are often a barrier to completing critical conservation projects. Funded projects must protect lands identified as priorities in the Q2C conservation plan (see www.q2cpartnership.org for more information).

So far, the Q2C program has awarded \$483,000 to 23 separate projects that collectively protect more than 14,000 acres of land. Each federal dollar has been matched with almost \$30 of state, local, and private funding and donations of land value.

Funding to date for the Q2C grants program has come from United States Department of Agriculture’s Natural Resource Conservation Service (NRCS) via Congressional member spending requests, or “earmarks.” Since earmarks have been eliminated by the current legislature, the FY12 appropriations process is also going forward without member requests. As a result, the Forest Society and its many Q2C partners are seeking funding through the regular budget process. The Administration’s America’s Great Outdoors initiative has as a central goal the support of local landscape-scale partnerships like the Q2C. ♪

New State Budget Raids LCHIP Funds

By Chris Wells

In June, the New Hampshire legislature completed work on the state’s next two-year budget. Once again the “dedicated” funding source for the Land and Community Investment Program (LCHIP)—a \$25 fee on recording certain documents at the County Registries — will be diverted to fund state government.

Governor Lynch had proposed a continuation of the recent status quo, with half of the LCHIP funds collected going to support natural and historic resource conservation and the other half going to the state’s general fund. House budget writers, however, voted to take 100% of LCHIP fee revenues for the next two years, and the

Senate subsequently agreed. The net effect of this action is that LCHIP will have no funds available for grant making for the next two years. Both chambers did agree to leave LCHIP with enough funds to maintain its small staff so it can continue work on open projects funded in previous grant rounds. ♪



Cannon Mountain is one of the crown jewels of Franconia Notch State Park. Photo by Greg Keeler/Cannon Mountain.

Cannon Mountain to Remain Under State Control . . . For Now

By Will Abbott

As one of the crown jewels of New Hampshire's state park system, Franconia Notch State Park deserves the best planning and management we can deliver. However, late in New Hampshire's 2011 legislative session, the Senate Finance Committee tried to force through an amendment that would have required the Department of Resources and Economic Development (DRED) to lease a key attraction within this popular state park – the Cannon Mountain Ski Area – to a private vendor. Adding insult to injury, this effort was initiated without any consultation with Commissioner of DRED George Bald or the State's Division of Parks and Recreation.

The proposed amendment died when House and Senate budget conferees could not agree to include it in the biennial budget for 2012 and 2013. As a result, Cannon will continue to operate as a state-run ski area

in 2012 and 2013. But the conferees agreed to drop the measure only after agreeing to take this issue up again in the 2012 legislative session.

The Forest Society has long opposed the idea of leasing the Cannon Mountain Ski Area for two core reasons. First, there is no existing master plan for Franconia Notch State Park, of which the Cannon Mountain Ski Area is a part. Such master plans exist for other state parks and should be the place where boundaries are set for any and all management objectives.

Our second concern with leasing Cannon Mountain Ski Area is that it isn't broken. So it does not need fixing. DRED has done a tremendous job over the past four years in turning Cannon into a money-making operation. Not only is the ski area able to meet its present obligations for operations

and debt payment, but its capital needs also benefit from the receipts of the ski operation lease at Mt. Sunapee.

The Forest Society remains convinced that Franconia Notch State Park is best managed and operated by the State Division of Parks and Recreation and should not be leased out in part or in whole. But at the very least, any discussion of leasing should see the full light of day, should have the full advice and consultation of the leader chosen by the governor and executive council to steward the agency, and should be driven by a master plan for the entire 6,000-acre park that has been fully vetted publicly. And the legislature should not allow the diversion of lease income from any state park to any other destination than the already starving state park fund. ♪

Signs of Autumn

By Dave Anderson

In the woods, each seasonal transition is accompanied by faint glimmers of what comes next and ghosts of each fleeting moment. Later sunrise and earlier sunset times now stagger in slow-motion toward an embrace they thankfully never reach. Field crickets chirp in lengthening darkness of approaching autumn evenings. I feel the changes too.

Forests are full of trustworthy harbingers who sing songs or send subtle signs. The rare, golden autumn quality to afternoon sunlight is different from the hard summer glare of just a few weeks ago. The momentary sunbeam illuminating a floating gossamer strand of spider silk suddenly portends an entire cascade of change.

Autumn offers a faded and dry vestige of a once-verdant forest drenched in bird song. For birds, the young of the year are fully-fledged, grown, and dispersed. Once riotous bird song in this exact locale is now deafening silence. Fragments of song are practiced by fledglings, a weak reprise of the summer symphony heard but only briefly each dawn. Adults feed actively while quietly



By October, the interaction of fading daylight on leaves unfurls the pennants of fall. Warm, sunny days following cool, frosty nights are prime ingredients for spectacular foliage. Photo by Jerry and Marcy Monkman, EcoPhotography.

molting into drab fall plumage. They perch in a fading canopy of ragged leaves, weather-worn and pocked with insect damage. Fall migration is underway.

“These days are numbered,” I sigh at first sight of crimson leaves on the wetland edge swamp maples. Trees adapted to living in wetlands are among the last to leaf-out



Left: The rare, golden quality to autumn afternoon sunlight is different from the hard summer glare of just a few weeks ago. Photo by Jerry and Marcy Monkman, EcoPhotography.



Right: The momentary sunbeam illuminating gossamer strands of spider silk portends an entire cascade of change. Photo by Kittie Wilson.



Northern trees like this beech quietly prepare for their winter. The residual green pigment breaks down, and the underlying yellow and orange secondary pigments are slowly revealed. Photo by Jerry and Marcy Monkman, EcoPhotography.

each spring and the first to call it quits in early autumn.

How do seemingly inanimate trees measure the changing season?

Northern trees quietly prepare for their winter. Conifers form waxy buds and begin to close needle pores, ceasing the gaseous exchange of photosynthesis. Hardwood leaves fade when green chlorophyll production slows. The unstable glucose molecules produced in leaves all summer are moved via sap to roots to be stored as more stable starch. A vast array of leaves, hundreds of millions of leafy solar collectors, translocate the annual gross domestic product to their root cellars for another coming winter.

Relative concentrations of leaf chemicals called “phytochromes” produced inside leaves during longer dark periods

begin to exceed those produced during short, sunlit hours. In response to changes in relative phytochrome concentrations, plant hormones signal leaves to form a corky “abscission layer” to seal off leaf stems called “petioles.” You can hear the audible snap of leaf petioles on frosty, October mornings as trees discard their spent solar panels.

Chlorophyll production ceases entirely. The residual green pigment breaks down, and the underlying yellow and orange secondary pigments are slowly revealed. Other hormones trigger production of red and purple secondary pigments where leaves remain exposed to weaker autumn sunlight. Red “Anthocyanin” pigments are responsible for the red, purple, and blue colors of fruits, vegetables, cereal grains, and flowers. Anthocyanin pigments are

brilliant scarlet colors in the sun-lit sugar maples, quintessential icons of the autumn foliage season.

Warm, sunny days following cool, frosty nights are prime ingredients for a spectacular fall foliage. The phenomenon is an outward manifestation of hidden leaf chemistry. Plant metabolism underlies singular events we most associate with New England: maple syrup and autumn foliage. We inhabit a landscape of trees.

By October, the interaction of fading daylight on leaves unfurls the pennants of fall. When we heed their annual message, we can’t ignore the undeniable metaphors for birth, growth, life, and death. ♧

Naturalist Dave Anderson is director of education and volunteer services for the Protection of New Hampshire Forests.



Conserving these lands will protect the panoramic forested mountain views of Mount Monadnock, which are widely visible from across the region.
Photo by Jeff Sluder.

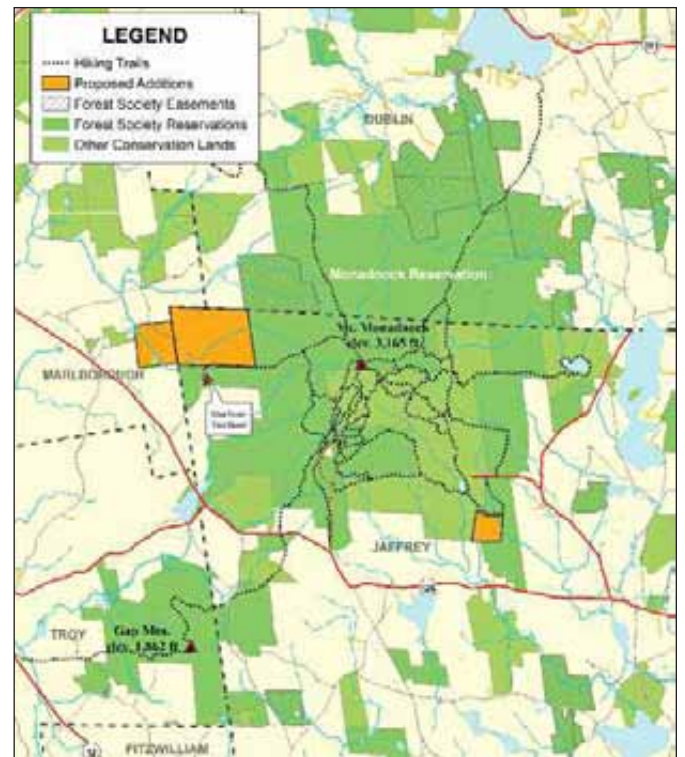
Protect a New Hampshire Icon

The Forest Society is working with two landowners to conserve 390 acres along the slopes of Mount Monadnock. If we are successful in our effort, this land will add to more than 10,000 acres of contiguous, permanently protected wild lands in this culturally and ecologically rich area.

Critical Access to Key Trails

These lands have tremendous natural and recreational significance. Their protection will guarantee that important sections of active hiking trails will continue to be maintained and open to the public under Forest Society stewardship. One of these properties, located next to Forest Society-owned land on the western side of the mountain, includes a key section of the Marlborough Trail, one of the main routes to Monadnock's summit.

The other parcel, which is surrounded on three sides by Forest Society land, abuts two class 6 roads that are heavily used as hiking trails, including part of a cross country ski trail that begins from the state park headquarters. Protecting this parcel will allow for better access to the trail network into the southeastern corner of the Monadnock Reservation.



Ecological and Wildlife Resources

With their forests and wetlands, these two parcels enhance the varied wildlife habitat that the region is renowned for. Nut-producing trees provide food for black bear, deer, moose, turkeys, and many small mammals. The woodlands in the higher elevations are dominated by oak and pine, but change as the elevation drops to mixed northern hardwood forests with beech, ash, yellow birch, and large hemlocks stands along the various brooks.

Several seasonal streams flow through one of these properties, converging into a single tributary that forms the headwaters of Mountain Brook, which supports a population of brook trout and other cold water fish. These lands also include several wetland complexes that provide important waterfowl nesting and feeding areas, as well as habitat for amphibians and reptiles. The waterways also serve as key travel corridors for mammals and birds, while the nut-producing trees provide food for black bear, deer, moose, turkeys, and many smaller animals.

Keeping an Iconic View Intact

The conservation of these lands will also protect the panoramic mountain views of



The excellent water quality of Mountain Brook supports a population of trout and other smaller cold water fish. Photo by Jeff Sluder.

Mount Monadnock that are widely visible from across the region.

To ensure the permanent protection of these lands, we must raise \$760,000. Your gift by December 31 will help us to meet the match requirements of private foundations and other large donors.

With your help, we will guarantee that these trails remain open to the public, and that these lands will continue to provide food and shelter for moose, bear, and other wildlife. Please help the Forest Society ensure that New Hampshire's treasured Monadnock landscape remains unbroken. ♻

☐ **YES, I WANT TO HELP THE FOREST SOCIETY CONSERVE NEARLY 400 ACRES ON MOUNT MONADNOCK**

Name: _____

Address: _____

Town/City: _____ State: _____ Zip: _____

Telephone: _____ Email: _____

☐ Enclosed is my tax-deductible contribution for \$ _____
(Please make check out to the Forest Society, with "Monadnock Landscape" on the memo line.)

☐ Please charge my tax-deductible contribution to my credit card in the amount of \$ _____

☐ VISA ☐ MasterCard Card number: _____ Expiration date: _____

Signature: _____

Please mail the completed form to: Monadnock Landscape, Society for the Protection of New Hampshire Forests
54 Portsmouth Street, Concord, NH 03301. Or donate online at www.forestociety.org/np.

For more information, contact Susanne Kibler-Hacker at 603-224-9945 or via e-mail at skh@forestociety.org.

Thank you for your help!





**SOCIETY FOR THE PROTECTION
OF NEW HAMPSHIRE FORESTS**
54 Portsmouth Street
Concord, NH 03301-5400
Address Service Requested

Nonprofit
Organization
US Postage Paid
Manchester, NH
Permit No. 0494

THE MANY FACES OF CONSERVATION

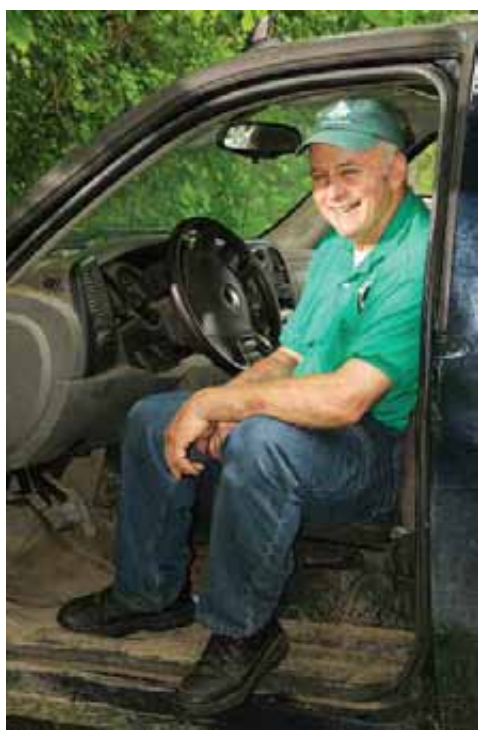


Photo by Jeremy Barnaby.

MEMBERS MAKE THE DIFFERENCE!

John O'Brien is among the 10,000 members who helped the Forest Society protect more than one million acres in New Hampshire. To join him, use the envelope in this issue or contact Margaret Liszka at 603-224-9945.

John O'Brien, O'Brien Forestry Services Orford, N.H.

Member since 1982

“My passion for the outdoors and forestry began at an early age riding a scooter to the skid way with my dad at the reins of Tom and Jerry, our two draft horses. In my element in the woods practicing careful forest management, I’m enjoying myself to no end.

My wife Deborah and I joined the Forest Society in 1982, and my working relationship as a consultant began in 1988. I built haul roads, landings, and primary skid trails and was the forester responsible for harvesting forest products on the newly-acquired Grafton Pond property. With its many islands and abutting forestland, this

undeveloped pond is a real crown jewel. There is a good chance it might now be dotted with seasonal dwellings had it not been for the Forest Society. It was a pleasure working for an organization that shared my stewardship ethic of managing land with a gentle hand and doing what is right and best for the forest and its ecosystem.

I have been interacting with the Forest Society over the past 13 years with my involvement as Reinspection Chair for the NH Tree Farm program. The Forest Society is a co-sponsor of our program and a staunch supporter of tree farming in NH. Many of the Forest Society’s members are

tree farmers and tree farm inspecting foresters who actively manage our working forests for the long-term for wildlife, recreation, and water quality as well as for income-producing forest products.

Besides practicing forestry, I also spend many hours building forest access roads and trails for the use and recreational pursuits of tree farmers and forest owners. A well-managed forest needs to be seen and enjoyed by its owners and visitors.

I thank the Forest Society for their vision and long-term commitment to good forestry and the preservation of our forests, wetlands, and wildlife habitat.”