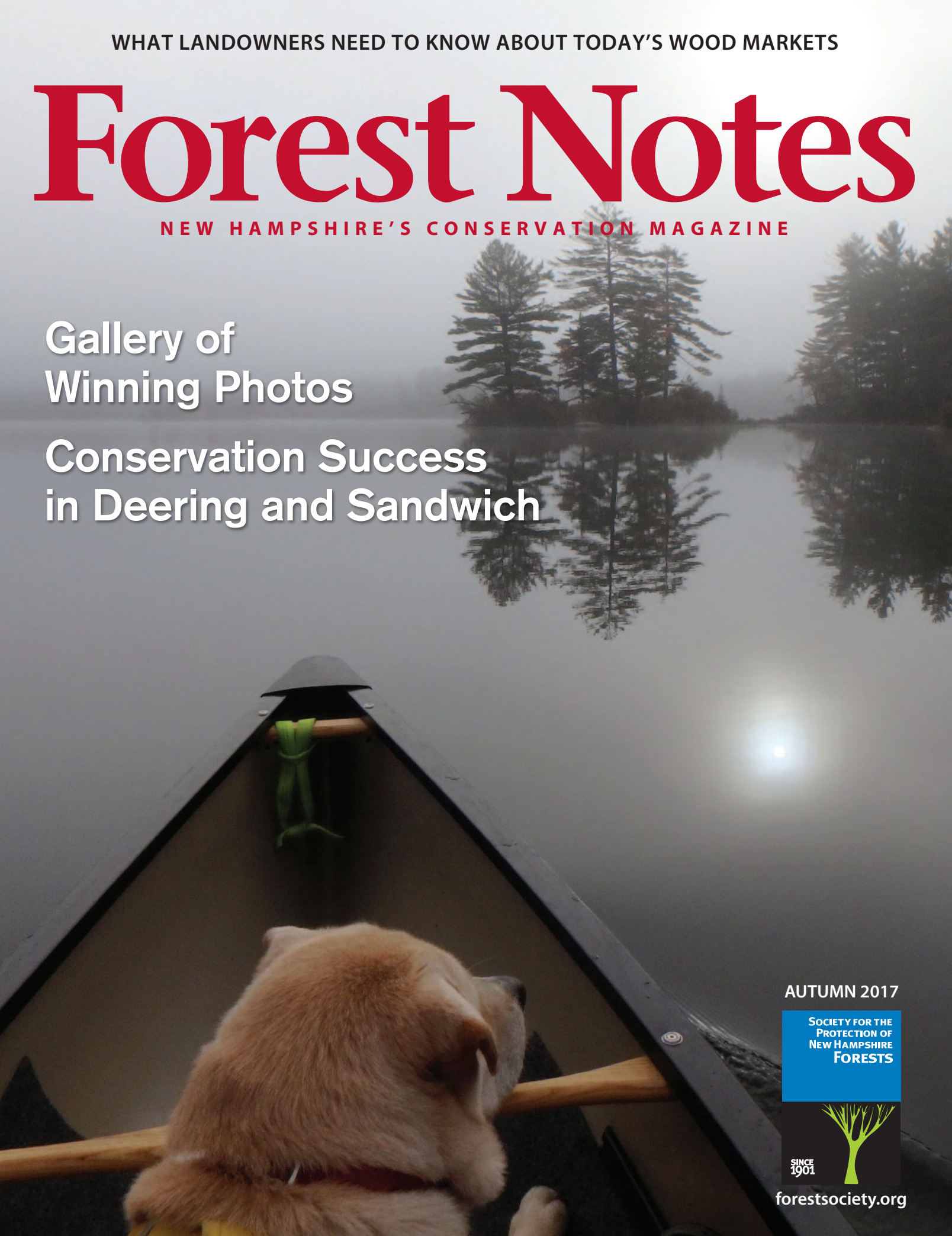
WHAT LANDOWNERS NEED TO KNOW ABOUT TODAY'S WOOD MARKETS

Forest Notes

NEW HAMPSHIRE'S CONSERVATION MAGAZINE

Gallery of Winning Photos

Conservation Success in Deering and Sandwich



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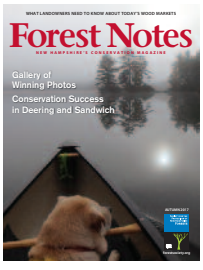

On our cover:
One of this year's photo contest winners, taken by Sheila Goss. See the photo gallery starting on page 6.

DEPARTMENTS

The Forest Society held its 116th Annual Meeting on Sept. 16. This issue's Prism is a written version of President/Forester Jane Difley's Fiscal Year 2017 report to members.

Perpetuating the Ethic

People often approach me—in the grocery store, along the street, at the Conservation Center—and they say: "Thank you for what you do," or "We're so grateful to the Forest Society," or "I don't know what New Hampshire would do without the Forest Society."

As I travel around the state, I hear these comments often. So do others on our staff as they do their respective parts in fulfilling our mission: "to perpetuate the forests of New Hampshire through their wise use and their complete reservation in places of special scenic beauty."

We hear it from those who share our opposition to Northern Pass, from easement landowners, from visitors at the Rocks and Lost River and Mt. Major and elsewhere. We hear it from generous landowners with whom we work to achieve their own conservation legacy. That appreciation is certainly great motivation for those of us who work for the Forest Society.

But I also feel a bit guilty, because in the end, it is all of you who should be thanked. It's our donors and members who make it possible for staff and volunteers to do what we do.

Our most visible land conservation success this past year, the Powder Major's Farm and Forest in Madbury, Lee and Durham, is a prime example. The reason we were able to raise more than $2 million dollars to acquire 192 acres and put an easement on an additional 60 acres was because the communities that host that land were able to come together. Town officials, high school students and teachers, local volunteers and generous donors all pitched in to permanently protect a place special to them all for different reasons.

And even beyond the local communities, we saw others generously support a project that they recognized had regional importance. In our experience, conservation of the right place at the right time inspires people to unite toward a common purpose with their time and energy as well as their financial contributions. Perhaps most important, the broad community effort to conserve the Powder Major's Farm and Forest included elementary school, high school and college students. So not only did it protect land, water, fish and

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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 $40 and includes a subscription to *Forest Notes*.

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Photo by Carrie Deegan.

Members and friends pause during a hike up the Andrew Brook Trail in Newbury with President/Forester Jane Difley (third from left). The hike was one of several field trips held in conjunction with the Forest Society's Annual Meeting Sept. 16.

wildlife habitat and recreation, but in doing so engendered new 21st-century conservationists.

By working to perpetuate the forests of New Hampshire, we perpetuate the conservation ethic that is the key to ensuring conservation permanence.

Of course, that wasn't our only accomplishment. As reflected in our Annual Report, we had a pretty good year. The annual financials are strong. We conserved more than 2,000 acres this past fiscal year through more than a dozen projects. In addition to acquiring the Powder Major's Farm and Forest, we added more than 500 acres to our existing forest reservations.

Regional Focus

This is not by accident, but by design. As I reported to you last year, we are consciously focusing effort on enhancing our existing reservations when those opportunities arise. And each modest project is part of a larger regional design to make the most of our resources to protect the highest conservation values.

One example is the addition of 233 acres to our Black Mountain Forest. Black Mountain is a thousand acres we acquired and protected a few years ago on the slopes of Mt. Kearsarge, representing not only good working forest but featuring important water resources, wildlife habitat and portions of the Lincoln Trail that leads to the summit. Improvements to that trail have been the focus of our Mt. Kearsarge Outdoor Classroom partnership with Kearsarge Regional High School. Once again, we are using the opportunity of stewardship to foster a conservation ethic among the next generation.

But if the Black Mountain project begat the 233-acre addition, it is our work over a century that begat Black Mountain. I suspect you all know that the Forest Society has long worked to conserve the forests along New Hampshire's western highlands, stretching up from Mount Monadnock to the White Mountains.

This work includes significant land protection on some of the region's most iconic peaks including Mt. Monadnock, Mt. Sunapee and Mt. Kearsarge.

Fifteen years ago we joined with two-dozen conservation partners to take on a more strategic approach. Since 2002, the Forest Society has led the Quabbin-to-Cardigan (Q2C) Partnership, a coalition of public agencies and private conservation groups working to conserve the region's most ecologically-important forests.

This landscape spans one hundred miles from the Quabbin Reservoir in Massachusetts north to Mount Cardigan. Encompassing two million acres, the region is one of the largest remaining forested landscapes in New England, and is a headwater to both the Connecticut and Merrimack rivers.

Its forests collect and naturally filter drinking water for almost 200 cities and towns, including two and a half million people in Boston and its suburbs.

The region also supports the forest products industry and a robust tourism economy. What we might call "wise use."

The Q2C initiative, made possible in large part by the support of the Virginia C. Mars Foundation, has enabled the Forest Society and our partners to increase the pace and quality of land conservation in the region. In addition to Black Mountain, notable projects include:

- The Pillsbury Sunapee Highland project conserving nearly 5,000 acres abutting Pillsbury and Sunapee State Parks;
- The Ashuelot River Headwaters Forest where 1,700 acres were acquired along the Ashuelot River;
- And the Cardigan Highlands project conserving more than 5,000 acres.

None of this is accidental. We set out to accomplish it. And we are so grateful to those landowners, donors and partners who made it possible.

Stewardship

As we realize our long-term conservation goals, we increasingly turn our attention to

Photo (left) by Wendy Weisiger; photo (right) by Carrie Deegan.

Left: *Consulting forester Jeremy Turner explains forestry goals at the Diehl Family Forest in Lempster.*

Right: *Students from Kearsarge Regional High School try out the bridge they built as part of the Forest Society's Mt. Kearsarge Outdoor Classroom Project.*

long-term stewardship of the land we own and the easements we hold. At the end of the fiscal year, we owned 180 Forest Reservations comprising 55,487 acres in more than 100 communities in New Hampshire. We hold 759 easements protecting another 128,572 acres statewide.

That's a lot of responsibility. That's a bucketload of perpetuity.

But today, thanks to our staff of professional foresters, we have a better inventory of our forest reservations and more complete management plans for those forestlands than at any time in our history. We remain committed to demonstrating the benefits of "wise use" as a conservation strategy. Sustainable forestry allows landowners to keep forests as forests. Our management can and does demonstrate that forests can offer economic value alongside water protection, wildlife habitat and recreation.

Our volunteer initiatives, including our nationally recognized Land Steward Program, are stronger than ever with 174 dedicated, trained volunteers helping to monitor and maintain our reservations. We launched a new Volunteer Easement Monitoring Program last year. We are embracing new technology in the field and in the office to help us track and improve our stewardship.

That said, we recognize that exemplary stewardship of conserved lands demands more than new technology, more than a highly competent staff, more than even a mighty band of committed volunteers. To ensure our promise of "perpetuity," we must remain relevant to the broader society. Conservation has to matter to more than just the people in this room.

I point this out because as we—the board of trustees, our board committees, our staff—contemplate the best ways to ensure the "perpetuity" of our mission, we believe that the key is our forest reservations. The good news is that people who've not yet heard of the Forest Society are out walking on our trails, taking in the views, hunting, paddling, walking their dogs, or simply breathing deeply under a canopy of green. Our challenge is to welcome them, not just to enjoy our conserved lands but to help take care of those lands, to give them the opportunity to ensure that conserved lands will be there for their children and their grandchildren.

This sense of legacy is not a new idea. I quote Lyndon B. Johnson from 50 years ago:

"If future generations are to remember us with gratitude rather than contempt, we must leave them something more than the miracles of technology. We must leave them a glimpse of the world as it was in the beginning, not just after we got through with it."

He went on to say:

"We must not only protect the countryside and save it from destruction, we must restore what has been destroyed and salvage the beauty and charm of our cities…Once our natural splendor is destroyed, it can never be recaptured. And once man can no longer walk with beauty or wonder at nature, his spirit will wither and his sustenance be wasted."

We have ample evidence that people in New Hampshire still care very deeply about forests and forested landscapes. One needs to look no further than the tremendous public opposition to the proposed Northern Pass transmission line, a project that threatens not just our own conserved

lands but iconic landscapes of statewide importance. Thousands of people, of all political persuasions, have spoken up in defense of New Hampshire's scenic landscapes. Just recently at a hearing for public comment, 35 people took time on a late summer evening to make their voices heard. In a dreary, windowless room in Concord, every single one of them stepped to the microphone and offered their own testimony about why our state's natural world matters.

Among them was Howie Wemyss, who many us know as the proprietor of the Mount Washington Auto Road. Howie said: "[But] let's be clear about one thing. The most important driver of tourism in northern New Hampshire is our renowned scenic beauty. From the early 1800s when the northern parts of the state were first being discovered by tourists, it was the haunting beauty of the mountains, the valleys and the rivers that drew national attention to the White Mountains and regions north. With artists sketching and painting these scenes, then displaying them in the metropolitan areas of the state, tourism took off in our northern regions. It is imperative that we do not degrade these scenic vistas that have been so important to us for so long. They've been the backbone of our tourist economy for many, many decades."

What would New Hampshire do without such voices?

The fight against Northern Pass won't go on forever, and we expect a decision by next March. We continue to believe that if the decision makers look at the facts presented, they will see there is a compelling case to say "No" to Northern Pass.

I'll finish by pointing out one more benchmark of the health of the Forest Society. While we often scrutinize the spreadsheets that detail the income, expenses, liabilities and assets of our organization, half the pages of our annual report are taken up not by numbers but with the names of our supporters.

There is no column in the spreadsheet tallying their commitment to our mission, nor the tremendous dedication of our volunteers, nor the generosity and collective conservation ethic of our "Society," yet those are what we consider to be our most valuable assets.

Thank you all for what you do. I don't know what New Hampshire would do without you.

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

THE WOODPILE—NEWS NOT SO NEATLY STACKED

Did You Know? Tax Break Available for Protecting Small but Significant Conservation Properties

By Tom Howe

The owners of small properties with high conservation—and financial—value have a little-known, additional incentive, in the form of reduced property taxes, to protect their land with a conservation easement (CE) under New Hampshire's "Conservation Restriction Assessment Program" (RSA 79-B).

Under this law, a landowner who has put a CE in place is eligible to receive favorable property tax treatment by the municipality reflecting the permanent reduction of the land's development potential. The assessed value set by the municipality is based on a prescribed range of values set by the State for the type of land enrolled, e.g. forestland, farmland, wetland, etc.; in fact, it follows the same rate schedule used for land enrolled in the more familiar Current Use Assessment Program, which requires at least 10 undeveloped acres for enrollment.

Since most CE tracts involve more than 10 acres, most landowners will have already enrolled their land in Current Use and been receiving a reduced property tax assessment prior to putting the CE in place. Thus, once the CE has been signed, there's usually little financial motivation to enroll the land in Conservation Restriction Assessment as well. However, if land to be conserved by CE is *less* than 10 acres and thus wasn't previously enrolled in Current Use, the prospect of receiving reduced taxation under Conservation Restriction Assessment can help motivate the landowner to put a CE in place on small but important conservation land.

A good example might involve a nine-acre tract with extensive, undeveloped waterfrontage, and perhaps also a rustic camp and seasonal dock. Such a property would typically have a high financial value and thus a high tax bill, perhaps requiring the landowner to rent the property in order to cover holding costs. This can digress to the point where the landowner is essentially shut out from using and enjoying the land, and in the worst case, forced to sell the property. One solution allowing for more affordable ownership might be for the landowner to arrange for conveyance of a CE to a land trust or governmental entity, and then to enroll the restricted land into Conservation Restriction Assessment. The key to the conservation group receiving such a relatively small CE will be inclusion in the CE area of the long stretch of undeveloped waterfrontage, with its typically significant scenic and habitat features.

The application and instructions are contained in the N.H. Department of Revenue's Form PA-60 available from the department's office at 109 Pleasant St. in Concord or online at: www.revenue.nh.gov/forms/all-forms.htm. Applications are due by April 15th.

Tom Howe is senior director of land conservation with the Forest Society. He can be reached at thowe@forestsociety.org.

Mt. Major summit, Chris Schlegl.

"This photo was taken at the top of Mt. Major after a beautiful snowshoe hike over Mt. Straightback. I enjoy doing a loop over both mountains and coming over Mt. Major later in the day, when the late afternoon light is gorgeous!"

FIRST PLACE

Celebration

Winning Photos from the Forest Society's 2017 Photo Contest

Members and friends of the Forest Society share a common delight in nature that never seems more evident than when staffers gather around the conference table at the Conservation Center and enjoy photos sent in from all corners of the state for our annual contest. One photographer found beauty in a gnarled tree root, another in a single blue eggshell, and yet another in the joyful face of a child who made it to the top of a mountain. These are the images of a love deeply felt and then shared. It's why we all take part in this work of conservation.

Thank you to all who submitted photos taken during visits to land conserved either as a Forest Society reservation or through a conservation easement. It's always a struggle to pick the handful to print here, and this year we had more than 70 entries so it was tougher than ever. We hope you enjoy the result and will be inspired to visit a Forest Society destination soon.

The Reservations Guide at www.forestsociety.org is a good place to start planning your next adventure. Remember to take pictures! Send your favorites anytime between now and Aug. 5, 2018, to photos@forestsociety.org to enter next year's photo contest.

SECOND PLACE

Grafton Pond from Bank's Pinnacle, above the Grafton Pond Reservation, Andrew Cushing.

THIRD PLACE

Tree in foliage, The Rocks Estate in Bethlehem, Kevin Jones.

Having fun on Mount Major, Lyndsey Vaillancourt.
"Aubrey (age 3) gets so excited when she makes it to the top!"

FIRST PLACE

SECOND PLACE

Grafton Pond, Dan Nowicki.
"Alone on the water on a beautiful fall weekday at Grafton Pond."

THIRD PLACE

Hiking at the High Watch Preserve, Effingham and Freedom, Ashley Norton.
"I took this photo of my husband, Mike, enjoying the view from the Hanson Top ledges over to the Green Mountain fire tower—after snacking on many blueberries, of course."

DOGGIE HEAVEN

Gryphon enjoying an early morning paddle in late October, Grafton Pond Reservation, Sheila Goss.

• FIRST PLACE •

SECOND PLACE

"While ruffed grouse were our quarry (pun intended), we were very lucky to catch a flight of migrating woodcock in the regenerating forest at the base of Quarry Mountain."

Great Bay Belle at Quarry Mountain Forest in Alton, David O'Hearn.

THIRD PLACE

"Dog On a Mission," Bolinger Easement, Lyme, Elsa Bolinger.

"Running on cut paths and exploring in the meadow is heaven for a dog no matter the weather, and Milo will never miss a chance to gallop full force through nature!"

Coyotes at the beaver pond (trail cam photo), Rollins-Young Easement, Alton, Gene Young.

• FIRST PLACE •

Egg, Heald Tracts in Wilton, Bart Hunter.

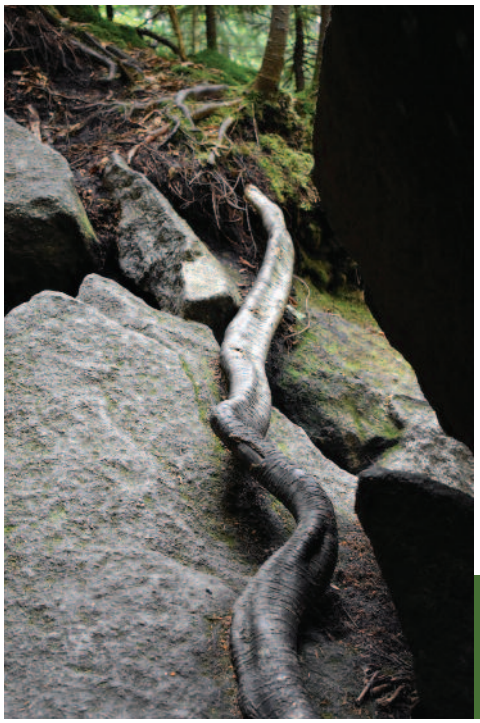
• SECOND PLACE •

Basking Painted Turtle, Grafton Pond Reservation, Chris Schlegl.

• THIRD PLACE •

FIRST PLACE

Webbed leaf, Ashuelot River Headwaters Forest in Lempster, Sue Lichty.



THIRD PLACE

Root at Lost River Reservation in Woodstock, Nancy Margerum.

SECOND PLACE

Pinxter flower on the Mine Ledge Trail at Madame Sherri Forest, Chesterfield, Joy and Charles Bowen.

"The pinxter flower was such a surprise. It had started raining lightly so we were trying to get down the trail quickly just in case it started to pour. I spotted this flower and took the picture because I had never seen anything like it before. I looked it up in my Audubon Society field guide and found out that its northern range is only up to Massachusetts, so this was just over the border. I try to be aware when we are hiking, because you just never know what you will stumble across."

YOUNG SHUTTERBUGS

FIRST PLACE

Grey Tree Frog on pickerel, Bolinger Easement, Elsa Bolinger, age 13, The Lyme School, Lyme, N.H.
"These tiny frogs spend their time jumping between the leaves of the pickerel flower we have growing in the pond in our backyard."

SECOND PLACE

The Colonial flag outside the Gould House at Monson Center, Milford, John Bergstrom, age 16, Rocky Hill School, East Greenwich, R.I.

American Mountain Ash berries, Mt. Monadnock, Brenden Bowen, age 17, homeschooled.

THIRD PLACE

Spring Azure, Heald Tracts, Wilton, Bart Hunter.

Turkeys, Dame Forest, Chuck Rhoades.

Silver Mountain in winter, Lempster, Sue Lichty.

Looking toward Parker Mountain, Rollins-Young Easement in Alton, Gene Young.

WANT TO SEE YOUR PHOTO HERE?

To enter next year's photo contest, email your best shots taken on a Forest Society reservation or on land protected through a Forest Society conservation easement anytime between now and Aug. 5, 2018, to photos@forestsociety.org.

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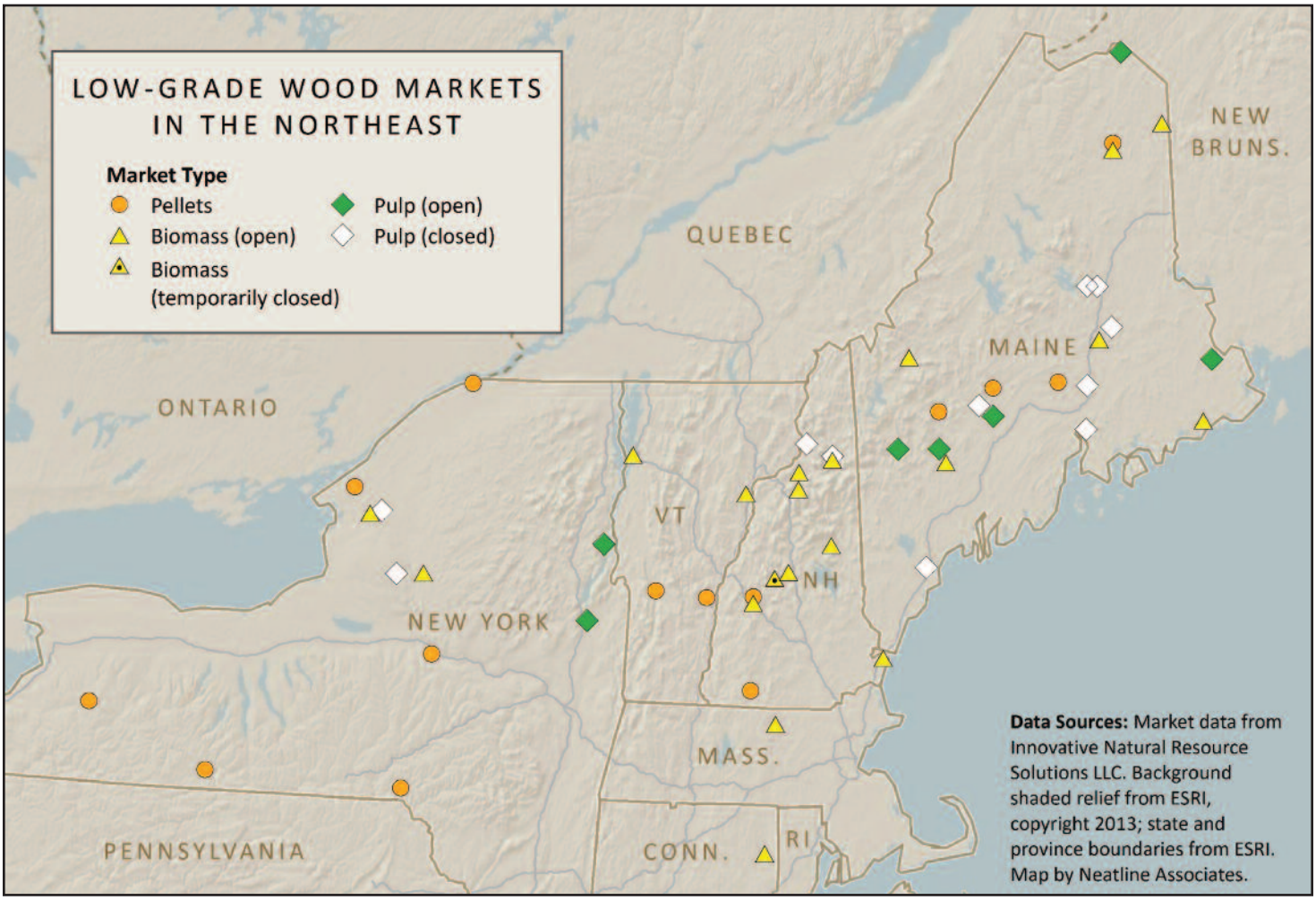


Photo (opposite page) by Wendy Weisiger.

Today's Timber Markets: Who Will Buy the Low-Grade Wood?

Declining—even disappearing—markets present a challenge for family forest owners

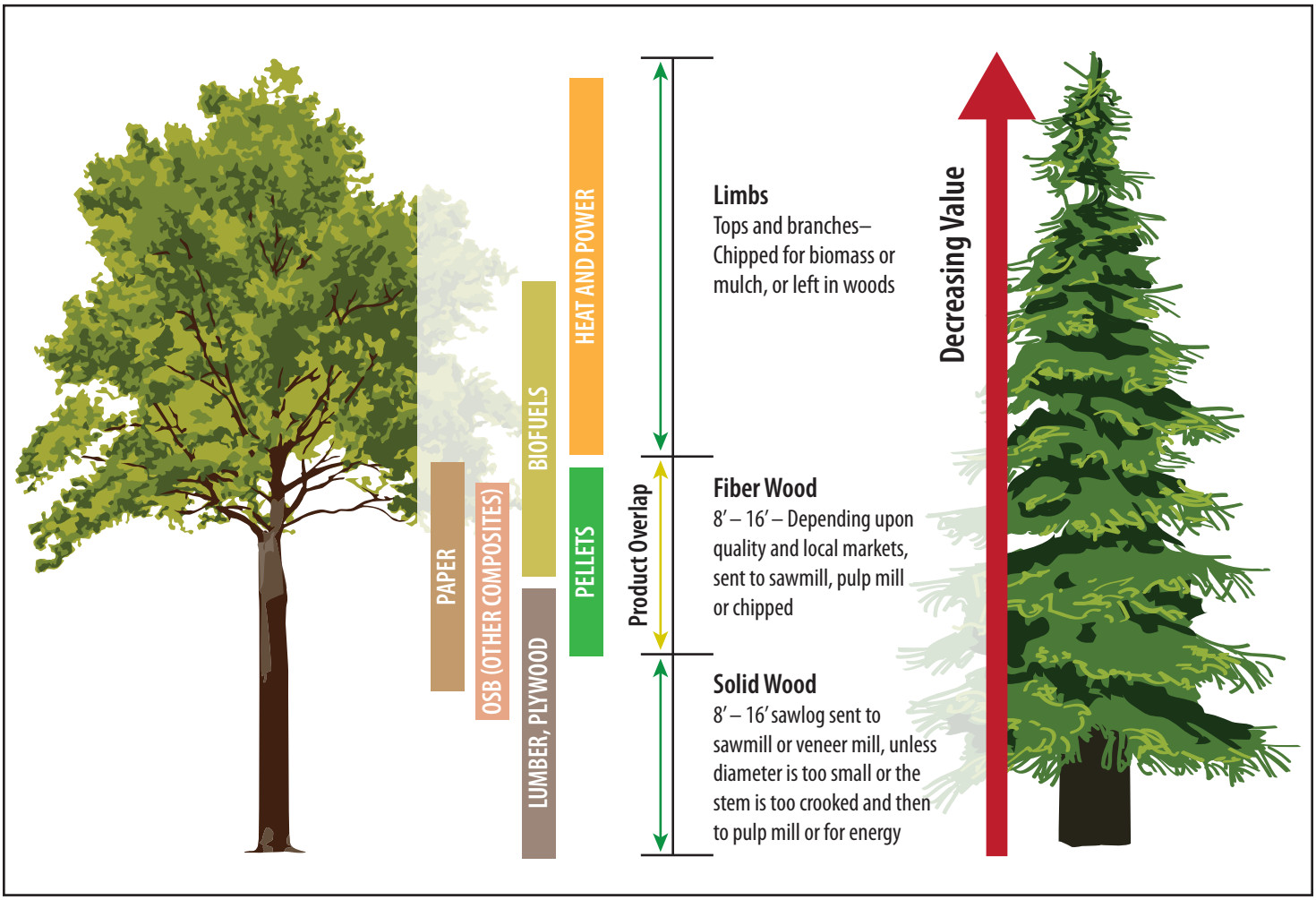
By Charles Levesque and Eric Kingsley

Van Webb, a logger and farmer from Sunapee, harvested from a mostly white pine lot on a 57-acre property in Unity, N.H., in 2016. Many of the pine trees he harvested were low-grade—meaning the logs could not be sawed into boards at a sawmill. Instead, he sent the wood to the biomass plant in Springfield, N.H., where it was burned to create electricity. Without a local market for this low-grade material, the harvest would probably not have been possible.

"I don't know what we'd do if the Springfield wood energy plant was gone. In this part of the state, there is no other low-grade market for pine." Webb said. "Without that market, this landowner would not have been able to have this property harvested—or at least not in a way that removes the low-quality trees along with some of the good trees—and leave a shelterwood forest of good quality that can now regenerate naturally with new seedlings."

On an average timber harvest in New Hampshire and the rest of the Northeast, easily 70 to 80 percent of the timber standing is comprised of low-quality trees. Harvesting the low-grade timber improves the remaining forest—the forest management goal for just about every forest owner. The low-grade wood comes from the top sections of trees that have a sawlog in the bottom. It also

The "dog days" of low-grade timber: Hardwood pulp—wood that is not suitable for becoming lumber or veneer—is stacked on a landing at the Forest Society's Crider-Rumrill Forest in Stoddard. Maple the dog looks suitably mopey about the low-grade situation.



Graphic courtesy Innovative Natural Resource Solutions, LLC.
Evergreen tree illustration by www.vectoropenstock.com.

Different wood products come from different parts of a tree, and every tree is unique in its potential, depending on size and straightness of the trunk, among other factors.

comes from other trees that are low-quality from top to bottom. This low-grade timber is used for pulpwood (paper), energy wood or firewood. Because of the low price paid to the landowner for low-grade timber compared to high-grade timber, landowners harvest low-grade timber for reasons other than income, mainly to improve the quality of the remaining trees and to remove diseased and dying trees. Another reason to harvest the low-grade timber is climate change. If left in the forest, the low-grade material will eventually die, fall to the ground and rot, giving off carbon dioxide and methane, two greenhouse gases that add to the problem of climate change.

But low-grade timber markets in New England are having a tough time surviving, creating a dilemma for New Hampshire forest owners, big and small. Even if you will only harvest trees once or twice in your lifetime on your woodlot, you will want to improve the quality of the remaining timber and improve forest health. That can only be done if your forester and logger have markets to ship the low-grade logs to.

Where the Wood Goes

Our key low-grade timber markets include the few remaining pulp and paper mills (pulpwood); electricity-generating plants (wood chips and logs); wood pellet manufacturing plants (wood chips and logs) and firewood buyers (logs). Since 1999, the Northeast has lost 11 pulp mills—we have six left with four in Maine and two in New York. New Hampshire has eight biomass electricity plants. Low wholesale power prices, combined with flagging incentives for renewable biomass from states in southern New England, have left these eight plants and the others throughout the region struggling to continue operations. Just since 2014, roughly 4 million annual tons of market for low-grade wood has been lost. Most of this is from the loss in pulp and paper markets but some is from shuttered biomass plants.

As markets for low-grade wood—both pulpwood and biomass—have declined in the Northeast, remaining low-grade markets have become increasingly important.

Some Help for Biomass Energy

Recognizing the important role biomass plants play in the forest economy, states have been acting to support continued operations. Last year, Maine allocated nearly $14 million to support continued operations at four biomass plants, attempting to close the gap between:

- the cost of fuel and operations, and
- what biomass plants get paid for their power and Renewable Energy Certificates (the "green" attribute of renewable energy that is bought and sold in electricity markets as a result of state policies—the Renewable Portfolio Standard).

This year, it was New Hampshire's turn. Of the eight biomass plants, six are considered "legacy" biomass plants—all under 20 megawatts in capacity, built decades ago. New Hampshire also has a facility that was converted from coal a decade ago in Portsmouth, and a new plant at the site of a closed pulp mill in Berlin. The plants represent increasingly important markets for loggers and landowners in the state and region, especially given what has happened to pulp and paper markets.

Recognizing the challenging economics that biomass plants face in today's energy market, this year the New Hampshire Legislature modified the state's Renewable Portfolio Standard (RPS), a law that establishes required levels of renewable energy purchases by state utilities. While complex, the modified RPS is expected to raise what the state's six legacy biomass plants get paid for their Renewable Energy Certificates—in essence the "renewable" part of renewable energy. In July, Gov. Chris Sununu allowed the legislation to become law without his signature.

The new law impacts the market for three years—2017, 2018 and 2019. It is expected that most or all of the six legacy plants (one, Indeck—in Alexandria, N.H., is currently idle) will be able to use this additional support to continue operating for a few years.

The 2020 Challenge

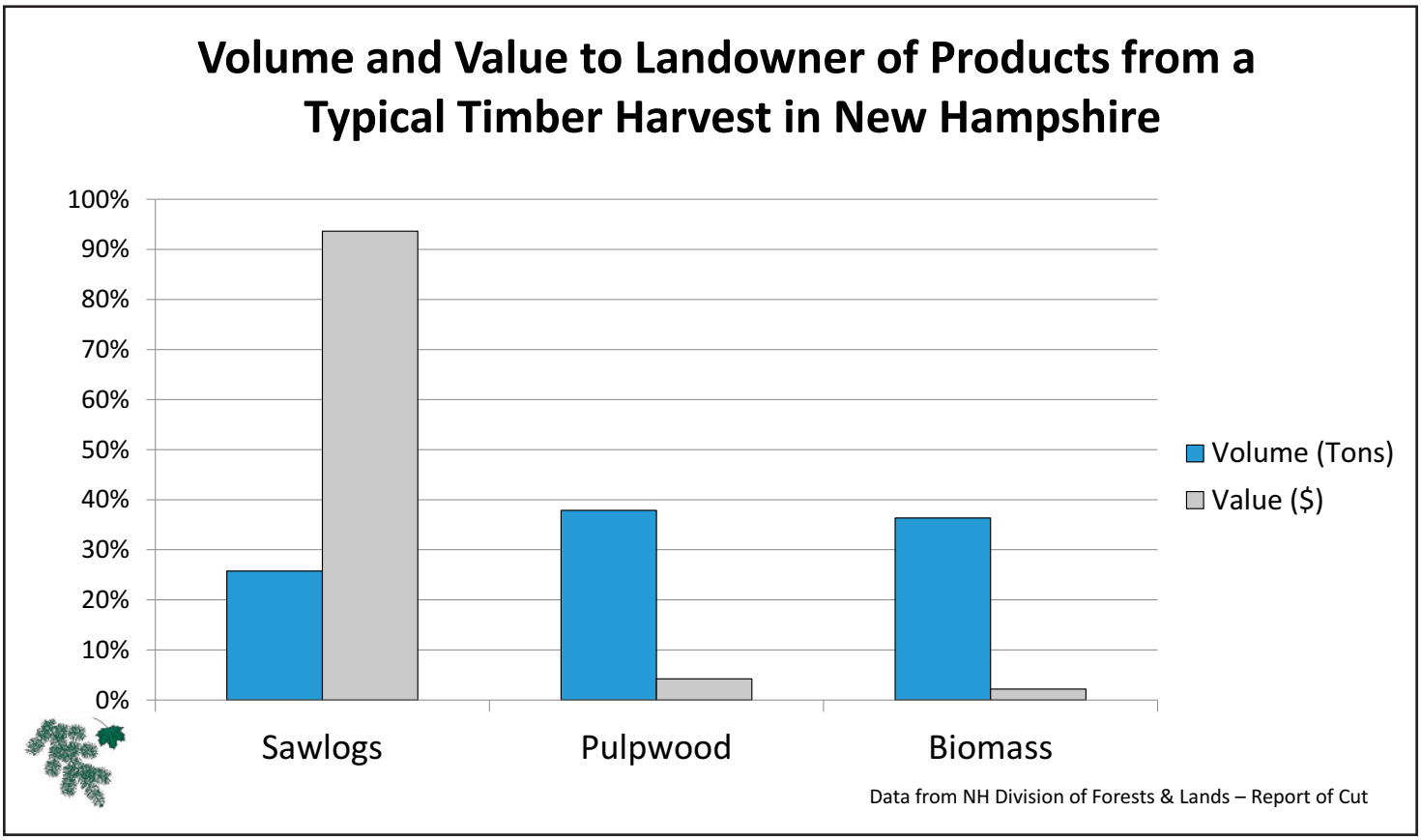
But what then? Wholesale electricity markets are expected to stay low, with plentiful and inexpensive natural gas the primary fuel used to generate electricity in the region. Despite all the news, solar and wind are a tiny part of regional power

Photo (top) by Danny Richardson; photos (bottom and middle) courtesy Innovative Natural Recource Solutions, LLC.

Top: *Consulting forester Jeremy Turner speaks with a tour group about timber harvesting at the Cockermouth Forest in Groton in 2010. The wall of chip wood behind the group was sent to Indeck Energy in Alexandria, which was shut down in the spring of 2017.*

Middle: *Lower quality wood is chipped directly into a truck for shipping.*

Bottom: *Firewood is a useful end product of some lower quality hardwood.*



Graphic courtesy Innovative Natural Resource Solutions, LLC.

Below: *Both wood chips and pellets are made of low-grade wood. Conversions to wood—burning heating systems from fossil-fuel burning boilers represent one brighter spot for landowners looking for markets for their wood.*

generation. Policy supports for biomass energy from the large markets in southern New England—notably Massachusetts and Connecticut—are gone or shrinking. State government in those states are, in essence, saying electricity from biomass plants is not green enough for their tastes. And the economics of selling biomass power in New England doesn't look like it will improve over the next few years.

It's not just New Hampshire's six legacy plants—and the 1.3 million annual tons (one tractor trailer load carries 32 tons of chips) of market they represent—that face this challenge. The state's largest utility, Eversource (formerly PSNH), is in the process of selling all its power generating assets—including a 10-year old 50 MW biomass plant in Portsmouth as required by law. The terms of sale require that the plant be operated for 18 months, but after that there are no guarantees. Similarly, a new (started operations in 2013) biomass plant in Berlin, at the site of the closed pulp mill, faces economic challenges. The facility has a Power Purchase Agreement (PPA) with Eversource that runs for 20 years, but a clause caps above-market costs at $100 million. Given the unforeseen drop in natural gas prices, this cap could be reached as early as 2019—in effect ending a 20-year PPA after only six years.

Given these events, all of New Hampshire's biomass market—totaling nearly 3 million tons—was at risk until SB 129 passed this legislative session, and still with the new law, is in jeopardy just a few years from now. While the legislation just enacted provides a welcome and needed reprieve, the industry has just a few short years to explore new business models to remain economically viable. Achieving this—and retaining the critical markets these plants provide—will require creative thinking not only from the biomass plants, but from their suppliers and policy-makers, all of whom have a stake in maintaining this market.

One Area of Growth

For the other forms of low-grade markets available for New Hampshire woodlot owners, namely pulp and paper and the thermal uses of timber for firewood, chips and pellets, the future is also unsure. These thermal markets combined currently use only about 5 or 6 percent of what the wood electricity plants use.

And less than that as compared to the pulp and paper markets in New York and Maine.

These thermal markets, however, represent one of the few new growth areas we have seen for low-grade timber in recent years. These markets were increasing nicely—think your local hospital or school—until fossil-fuel prices dropped significantly beginning in 2014. It may be nice to fill up your car with gas for $20 less than in early 2014, but it has hurt interest in switching from fuel oil to wood for heating buildings.

Much at Stake for Landowners

So what does all of this mean to New Hampshire woodlot owners? Our landowner in Unity can still sell low-grade pine in New Hampshire because of the passage of SB 129 this year, but in three years when that expires and if the wood-fired power plant closes in Springfield, what will he do? Yes, he could just not harvest at all, but then the trees will eventually die and contribute to the climate change problem when they fall and decompose. He could also just harvest the best quality timber and not the low-grade, but this "high-grading" only creates an unhealthy forest that is more susceptible to disease and insects and has reduced timber quality.

The goal of virtually all timber management is to grow the most valuable timber so that the landowner receives the most value when the timber is harvested. We cannot do that if we have no low-grade timber markets.

Sawmills—where that high-quality timber goes—are also caught up in the dilemma of low grade wood markets. When you saw a cylinder (the tree) into square boards, a lot of the outer round wood is waste. It is chipped and goes to pulp and paper and energy plants. If those markets shrink and sawmills, which are doing very well right now, lose those markets, they cannot operate. And some are feeling that pressure already.

We all want healthy forests and the ability to grow high quality timber on our woodlots. Strong low grade timber markets are essential for forest owners and the infrastructure of the forest products industry. Today they are available but very much at risk.

Charles Levesque and Eric Kingsley are partners in the consulting firm Innovative Natural Resource Solutions, LLC with former Forest Society staffer Charlie Niebling.

A Bright Spot

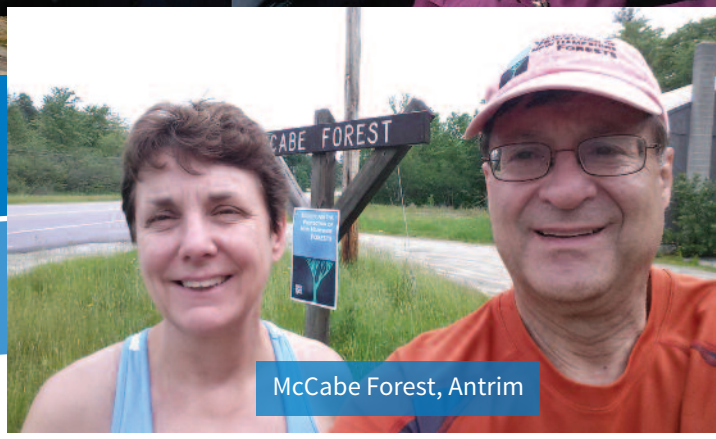
The outlook for low-grade wood markets isn't all bad. A bright spot has been growth in the number of commercial and institutional buildings converting from fossil fuels to sustainably sourced wood chips and pellets for heat. That growth has slowed in recent years to correspond with declining prices for natural gas. However, in New Hampshire 116 commercial and institutional buildings—schools, hospitals, municipal buildings, low-income housing facilities and businesses—are using modern wood heating, according to a 2015 analysis by the N.H. Wood Energy Council. The analysis revealed promising data:

- Nearly all these facilities burned imported heating oil in the past. By switching to modern wood heating they reduced oil use by the equivalent of 7.7 million gallons.
- By switching fuels, these facilities saved about $11.8 million in heating costs.
- These facilities consumed an estimated 7,500 tons of pellets and 94,000 tons of wood chips, mostly from New Hampshire forests and wood manufacturing residues.
- Money spent on wood chips and pellets pumped $5.8 million into the local economy. Direct spending on wood fuels, combined with retained wealth through heat cost savings and jobs and taxes associated with this sector generated a total of $35.9 million in economic activity in New Hampshire, using conservative multipliers.
- Reducing use of high carbon fossil fuels and using low carbon wood chips and pellets from sustainable sources reduced overall carbon dioxide emissions by over 69,000 tons.

A truck gets ready to dump wood chips into the hopper at the wood-burning heating plant at the Conservation Center, the Forest Society's Concord headquarters.

Merriman Forest, Holderness

Hay Reservation, Newbury



McCabe Forest, Antrim

Challenge Met

First hikers achieve the Forest Reservation Challenge

On July 2, 2017, Sylvia Bates and Tom Masland of Canterbury became the first hikers to complete the Forest Reservation Challenge (FRC) by visiting all 33 forest reservations featured in the Challenge. The Forest Society started the FRC last year to encourage people to explore and appreciate conservation lands around the state. Hikers can earn their FRC patch and decal two ways: Explore all 33 featured reservations and document visits with photos; or visit smaller, region-based sets of properties and answer natural history questions about them (great for kids). We asked Sylvia and Tom to share their experience by answering a few questions, and they enthusiastically agreed.

Q: What made you decide to take on the Challenge?

A: We had been considering doing the Challenge since we first heard about it when announced. We are always looking for interesting hiking projects! After finishing the 4,000 footers, redlining many of the trails in the White Mountain National Forest and hiking the length of New Hampshire, we were ready for something new.

Q: How long did you take to complete the Challenge? Was it difficult to get all 33 reservations done?

A: We started on Christmas Day last year and finished on July 2 this year—so it took us just over six months. And no, it was not difficult to get them done. We like to get out every weekend when we can when we are not working or traveling.

Q: Did you set a schedule and plan it all out, or just pick a new spot when you had some free time and head out?

A: We intentionally did them in order—that way we had a plan and didn't have to make the decision of which one to do next. It helped that you grouped them geographically!

Q: Now that you've visited all 33 featured reservations in the Challenge, do you have a favorite or a couple of favorite reservations? What makes them your favorites?

A: Our favorites were the larger ones, Cockermouth Forest and Moose Mountains Reservation in particular, because of the variety of terrain and landscapes and the extensive trail networks. However, the smaller reservations are also special. The smaller gems included High Five in Deering and the Morse Preserve in Alton. Each reservation has unique attributes.

Q: Please describe any encounters/sightings of wildlife you may have had.

A: We loved the heron rookery in Monson Center—we could see both adult and juvenile herons. That was the first time we've seen an active rookery in New Hampshire.

Q: Were there any surprises along the way?

A: High Five in Deering has a fabulous 360-degree view. The open summit and remnants of the old farm come as a complete surprise after about a half-mile walk up a woods road in a fairly suburban area.


Heald Tracts, Wilton


High Five Reservation, Deering


High Watch Preserve, Effingham


Monadnock Reservation, Jaffrey

Sylvia Bates and Tom Masland are longtime friends of the Forest Society. Sylvia is a former staffer who worked in land protection from 1989-1997. She even helped coordinate the donation of one of the most often visited reservations on the Challenge, Madame Sherri Forest. Tom is an attorney who has provided legal services to the Forest Society for many years.

Q: Did you see many other hikers?

A: That was one of the things we really liked about the Challenge. With a few exceptions (particularly Mount Monadnock and Madame Sherri Forest) we saw very few people and had the trails to ourselves.

Q: What challenges did you encounter?

A: Well, we had to wait until Lost River opened—it was the only reservation we did out of order. We had planned to snowshoe in from the road, but Dave Anderson warned us about the surveillance cameras, so good thing we didn't!

The most challenging from a hiking standpoint was the Chippewa Trail on the Kingsbury Timber Lot to Black Mountain, which we did in winter with much ice on the trail, without an ice ax and crampons (although we did have Stabilizers).

Q: What was most interesting or memorable about your visits?

A: We loved having the opportunity to visit different landscapes and new corners in every part of the state and to explore destinations that we might not otherwise have thought to visit. And while we had been to many of the reservations before, some were new to us.

Q: What advice do you have for others who think they might want to try the Challenge?

A: Get started! It's a great family project. Every reservation is approachable and accessible. Wherever you live in New Hampshire, there is one that is close by and an excellent place to start.

Ready to take on the Forest Reservations Challenge?

To find out how to embark on your own Challenge, go to forestsociety.org/challenge to find all the properties, directions, maps and a check-off list to get started. Happy hiking!

Protector of N.H.'s Last Best Forests

Virginia Cretella Mars Foundation Honored as Conservationist of the Year

The Forest Society honored the Virginia Cretella Mars Foundation as the 2017 Conservationist of the Year at the Annual Meeting Sept. 16 in Claremont. President/Forester Jane Difley presented the award to Virginia Cretella Mars, in recognition of her foundation's far-reaching and effective support of region-wide conservation projects in western New Hampshire.

Please read on for an excerpt of the award presentation:

"To us, this is the most prestigious recognition at the Forest Society. Past Conservationists of the Year include Gov. John and Anna King, U.S Sen. Judd Gregg, descendants of John Wingate Weeks and naturalist John Hay. The Conservationist of the Year Award honors people whose work to promote and achieve conservation and stewardship is exemplary, so we look for those who stand out through the magnitude of the action they undertook.

Virginia Cretella Mars has been engaged with the Forest Society for 20 years and has quietly helped us protect more than 28,000 acres of the highest conservation value lands in the western part of the state over the last 10 years. Through grants to the Forest Society for the Quabbin-to-Cardigan Partnership, 20 conservation organizations have completed more than 84 fee acquisitions and conservation easements since 2009.

Most importantly, Ginnie has annually taken a giant leap of faith by committing advance funding to unidentified projects to cover the transaction costs that are often a barrier to success for land trusts. This support served as a catalyst for other funders, enabling the Forest Society and partner organizations to launch and complete projects that conserve lands in the focus areas of the Quabbin-to-Cardigan Conservation Plan.

With a strong connection to the Sunapee region and a deep appreciation for its natural landscapes and scenic beauty, Ginnie contributes keen insights and engaging conversation that help shape our thoughts and actions on conservation issues. It is our great honor to recognize her foundation as the Conservationist of the Year."

Photo by Midge Eliassen.

Virginia Cretella Mars has helped to protect more than 28,000 acres in New Hampshire.

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

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($5,000 and up)

Paradigm Computer Consulting, Inc.
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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 contact Susanne Kibler-Hacker at (603) 224-9945 or via email at skh@forestsociety.org.

Head to The Rocks for Christmas Trees, Gifts and Outings

The Rocks Estate and Christmas Tree Farm, the Forest Society's North Country Conservation and Education center in Bethlehem, N.H., is ready to make your upcoming holiday season a memorable one. The Marketplace and Gift Shop will be open weekends in October and daily (except Thanksgiving Day) from Nov. 6 until Christmas Eve.

The shops are chock-full of USA-made items, including many from local and regional vendors. You'll find N.H-made gifts, ornaments, holiday decorations and The Rocks' own maple syrup.

Would you like to ship a New Hampshire Christmas tree or wreath to far-flung loved ones? Just go online at www.therocks.org or call.

Starting on Nov. 18, cut-your-own and pre-cut Christmas trees are available daily (except Thanksgiving Day) until Christmas Eve. Many families make The Rocks part of their holiday tradition by combining the search for just the right tree with a horse-drawn carriage ride around the scenic estate. The carriage rides begin on Nov. 18. They are very popular, so please call ahead for dates and reservations.

The Rocks also boasts a network of pet-friendly walking trails, open daily, year-round, from dawn until dusk. And the Rocks Mobile Tour, with more than a dozen signs throughout the property displaying QR codes, allows visitors to use their smart phones to learn more about the history of the estate, modern day conservation and management practices, and the different types of Christmas trees grown on the farm.

Please visit www.therocks.org or call 444-6228 for more information.

See www.forestsociety.org for more upcoming events

Fall is the ideal time to tag a tree at The Rocks.

Meet Volunteer of the Year Russ Wilder

By Carrie Deegan

The Forest Society's 2017 Trish Churchill Volunteer of the Year Award recipient, Russ Wilder, has been enjoying the Belknap Range on the southern shores of Lake Winnipesaukee since he was a small boy.

"There are photos of me right down there on that dock when I was 10 years old," Russ said, as he walked the property that's been in his family since the 1940s.

Now that he has retired to this same land in Alton, N.H., in the shadow of Mount Major, he dedicates much of his free time to protecting this place that has always meant so much to him.

Photo by Carrie Deegan.

Russ Wilder takes a turn around Lake Winnipesaukee, where you can get a great view of the Belknap Range.

Russ spent his working career in environmental protection. Soon after graduate school, Russ was offered a job at the fledgling Environmental Protection Agency (EPA), which had been established by President Nixon's executive order only one year earlier. His work involved implementing the Clean Water Act (CWA) in New England, working with tanneries, textile mills and paper mills to reduce and treat their discharges that previously poured directly into the region's rivers.

"I feel lucky that I was able to get a job at the EPA just at that time, to be a part of that massive cleanup effort," Russ said. "It wasn't popular with the industries, but we got them to do it. It was the law. Looking back, it's amazing how well the waterways have recovered since that time. People swim in the Merrimack now."

Russ has always been an active volunteer, having served on the conservation commission and planning board in Windham, N.H., for a combined 25 years when he lived there. But in the past 10 years, after relocating full time to Alton, he kicked things into high gear. He is currently the chair of the Belknap Range Conservation Coalition (BRCC), where he has spent the past seven years helping that group facilitate protection of thousands of acres of land. He's also the board chair for Lakes Region Conservation Trust (LRCT) and an active member of the Alton Conservation Commission (ACC) and Planning Board.

"Any one of these roles would be a notable contribution for most people," said Tom Howe, senior director of land conservation at the Forest Society, "but Russ is so incredibly dedicated to conservation that he handles them all at the same time. And what's more, each of these groups benefits greatly from his dedication and work for the other groups. It's synergism at its best."

The Forest Society has benefitted from this synergy, too. Russ was an instrumental player in our recent campaign to protect 980 acres on and surrounding Mount Major, working behind the scenes with BRCC, LRCT, the Town of Alton, and other groups to build consensus and help raise the funds to complete the project. Following the Mount Major campaign, Russ trained to become a volunteer land steward for the new Mount Major Reservation in 2014. He has also assisted with our Mount Major Outdoor Classroom (MMOC) Program, which engages elementary schools already taking field trips to hike the mountain.

"I thoroughly enjoy going out with the kids," Russ said, about assisting with the MMOC hikes. "The fourth and fifth graders are at just the perfect age for it—they're not worried about what others think of them yet, and they're interested in everything. These schools—they're where our future volunteers are."

Russ acknowledged his volunteering as a land steward and for MMOC is "the fun stuff" compared to board meetings and fundraising, and then added, "but how are we going to convince new, younger people to become board members someday if we don't hook them in with the fun stuff first?"

Clearly, Russ himself was hooked as a young boy, standing on his family's dock in the shadow of Mount Major. At the Forest Society, we're grateful for that, and so pleased to be able to honor Russ Wilder's work with the 2017 Volunteer of the Year Award.

Carrie Deegan is the community engagement and volunteers manager at the Forest Society.

Trails Champion is all about Connecting

Easement Protects 68 Acres along Cold River

By Brenda Charpentier

No matter how long and scenic a trail may be in Sandwich, N.H., cross-country skiing enthusiast George Bates is always, always going to think it needs to be two more things: longer and protected into perpetuity.

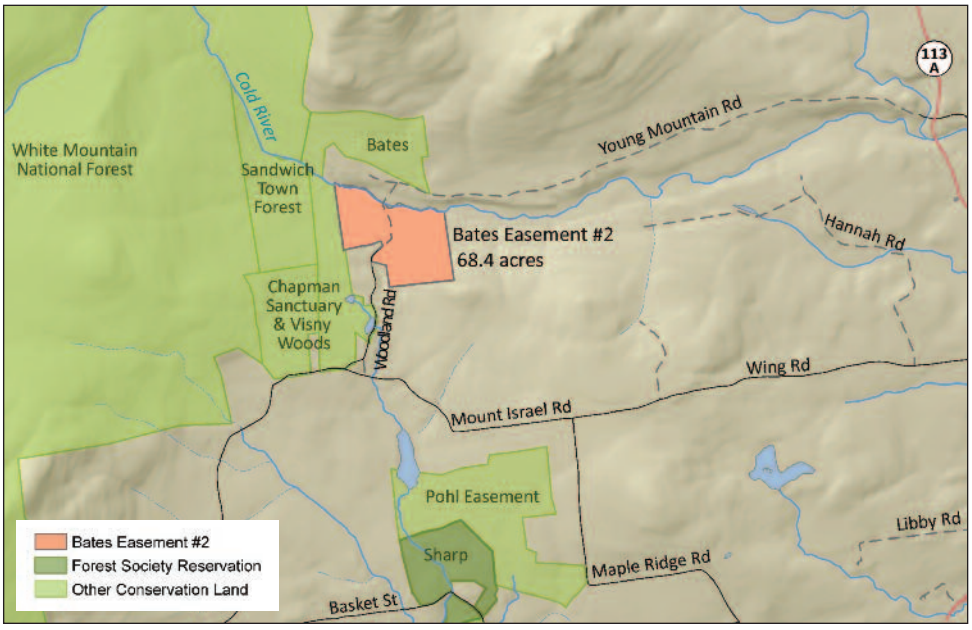
For evidence, look no further than a beautiful forest next to the Cold River that Bates and his wife Nancy have recently bought and protected by donating a conservation easement on it to the Forest Society. It's the fifth easement they have donated in the Sandwich area, all with the goal of connecting trail systems and making sure they remain open for skiing and other minimal-impact recreation.

Bates is a businessman who at 85 continues to work as president of a packaging company in Massachusetts and in March completed a 33.5-mile Nordic skiing race up and down two mountains in Norway called the Birkebeiner. You could say he knows how to go the distance. That includes his decades of work in land conservation. His latest project, completed in September, protects 68 acres along the Cold River and was the second easement donated to the Forest Society (he also works with other conservation groups). In 2013, the Bateses conserved another 58 acres with the Forest Society, also along the Cold River in Sandwich.

Photo by Tom Howe.

George Bates stands next to the Cold River in Sandwich.

While the protected Cold River frontage is a highlight of these properties from an ecological standpoint, for Bates both projects are all about the trails. By purchasing and conserving the first property, he was able to connect trails and ensure access to some of his family's favorite skiing trails around Young Mountain, all the while keeping those trails open to the public as well. Bates acquired and conserved the more recent property in order to connect to trails on the abutting Chapman Sanctuary and Visny Woods, where 10 miles of trails connect to those on the White Mountain National Forest.



"It really makes a very nice network," Bates said. "People can start in any number of places and go a long way in all directions."

George and Nancy live in Weston, Mass., where he is very active in the Weston Forest and Trail Association. A long relationship with the Forest Society began back in the late 1980s, when Bates acquired his first Sandwich property, 106 acres protected by a Forest Society deed restriction, in order to provide recreational access to the Flat Mountain Pond Trail from Whiteface Intervale Road. He secured this access to the popular trail—with connections to the Guinea Pond Trail—by providing a right-of-way across his land to the U.S. Forest Service. He and Nancy liked the area so much they had a house built on the property, which has become their base for long-distance skiing and trails building.

The new easement on 68 acres protects a forest that is within a focus area of the Forest Society's Lakes Region Conservation Plan. It boasts the county's champion Bigtooth Aspen, according to the N.H. Big Tree Program, plus large hemlock, yellow birch and ash trees that have gained their distinctive girth thanks to growing on steep slopes not amenable to harvesting. The picturesque trails follow the excellent

Bates continued on page 31.

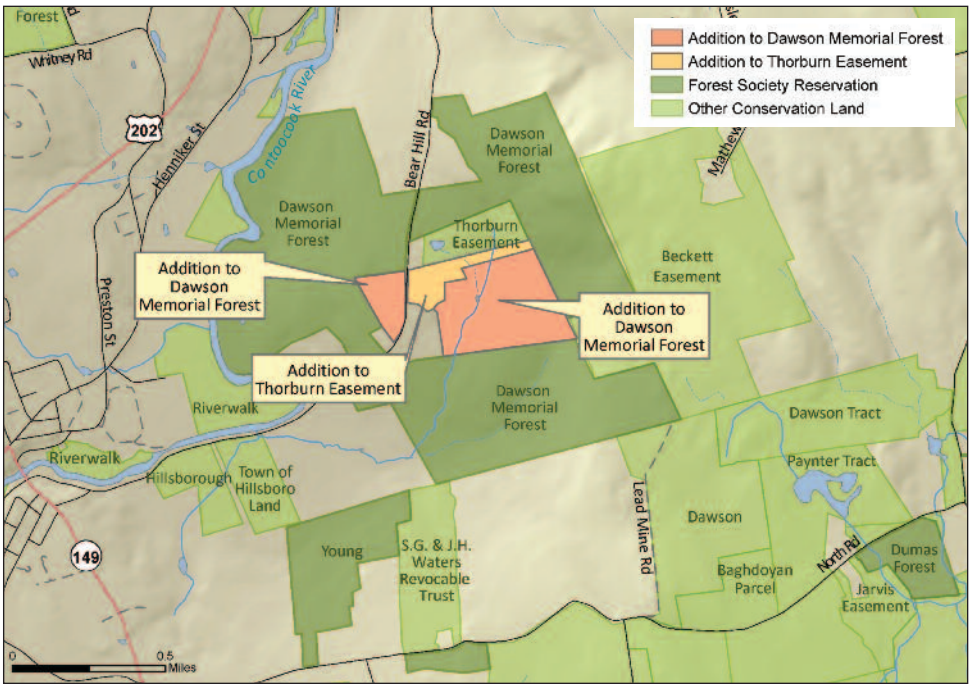
Photo (left) by Brian Hotz; photo (right) by Brenda Charpentier.

An 85-acre forest (left) has been added to the Dawson Memorial Forest, and 17 acres of pasture and woods (right) along Bear Hill Road in Deering are conserved, thanks to the generosity of an anonymous donor and Jim and Cynthia Thorburn.

Second Easement, Second Opportunity to Do Their Part

James and Cindy Thorburn both grew up in Connecticut and over the years have seen the farms and forests around their old neighborhoods turn into suburbia, overtaken by a voracious New York City. So they aren't ones to take New Hampshire's remaining open lands for granted—not with Boston already influencing development and land prices in southern New Hampshire.

It was with this background that the Thorburns came to the Contoocook Valley one day in 2005 to look at a farmhouse and land for sale along Bear Hill Road in Deering. In the course of buying the farmhouse, they learned that the seller was donating the land that had previously been attached to it to the Forest Society. The seller, who wishes to remain anonymous, also shared with them a vision of large-scale conservation in the valley, the results of which they could see on a map of expanding green spaces in Deering and Hillsborough.



It was an inspiring vision.

"We felt it was a great vision that we'd like to participate in, even in a small way," said Jim Thorburn.

So they donated a conservation easement on 25 acres of the farm to the Forest Society. Recently a neighboring parcel of land along Bear Hill Road came on the market, and the Thorburns once again saw an opportunity to help the bigger picture to become a greener one in the Contoocook Valley. Partnering with the anonymous donor, they bought the 115 acres. The partnership then donated 85 acres to the Forest Society as an addition to the abutting Penelope and John Dawson Memorial Forest, and the Thorburns put a conservation easement on 17 acres that they have added to their property.

Thorburn continued on page 31.

Photo of Alayna Signorello by Brenda Charpentier, all other photos courtesy Gundalow Company.

Students from the Gundalow Company's summer day camp in Portsmouth found a quiet place to practice paddling, enjoy the tidal creek and explore life along the shoreline. Alayna Signorello (bottom right), a seasonal education assistant with the Forest Society, welcomed campers to Creek Farm over the summer.

All Ashore!

Creek Farm Welcomes River Rats—and Other Explorers

By Brenda Charpentier

Knowing the rich history and diversity of the Portsmouth property she owned, Lillian "Billie" Noel in 1997 conveyed her 36 acres to the Forest Society with the provision that it be used for the enjoyment and benefit of the entire community. And so, with strong donor support, Creek Farm became a forest reservation and people were welcome to walk its trails, launch a kayak into tidal Sagamore Creek or explore the mud flats at low tide.

This summer, the community benefit Noel desired grew by leaps and bounds—kids' leaps and bounds, that is. The Forest Society expanded its partnership, begun in 2016, with the Gundalow Company of Portsmouth's summer camps for kids. The Gundalow Company brought students to Creek Farm as part of their River Rats Camp. This camp immerses students in the marine and maritime world—including sailing on an historic gundalow, kayaking, swimming and exploring the shoreline.

Alayna Signorello, a seasonal education assistant with the Forest Society, hosted the campers and worked with Gundalow Company staff to provide memorable land-based experiences that would make the most of Creek Farm's resources. The kids built forts, explored a vernal pool and a tide pool, hiked through the woods, drew maps and discussed their roles and responsibilities in the natural world.

Hosting the River Rats provided a wonderful opportunity to help kids

"It's great to see Creek Farm used to grow the next generation of conservationists."

— Jack Savage, vice president of communications/outreach at the Forest Society

make connections to a particular place," Signorello said.

"Any time kids can experience a place like this with their own hands—especially when they can come here on a repeated basis and have spots here that are special to them—it creates a connection with the land and with all the life that depends on it," she said.

The Forest Society created an inside space in the carriage house on the property to provide a warm and dry spot for rainy days. It already had a dock for boat launching. These resources, plus the naturally sheltered shoreline, make the property ideal for the camp, said Gretchen Carlson, a program manager with the Gundalow Company.

"I couldn't imagine a better place to run a summer camp," she said. "From the forests to the gentle shoreline to the calm waters, our campers could explore, learn and play right in Portsmouth. After spending a week at Creek Farm, campers were more confident on the water, had a better understanding of the shore-side ecosystems and are more connected to the place they live."

Campers also learned that Creek Farm has a rich human as well as natural history. It was one of the first areas in the region cultivated by European settlers in the early 1600s. It was part of royal Gov. Benning Wentworth's 500-acre estate in the late 1700s, and his mansion is part of the historic site on adjoining state land. In the late-1800s, it was the hub of a summer community of artists, musicians, historians and others led by Arthur Astor Carey, who in 1905 hosted delegates to the Russo-Japanese Peace Conference (which ended the Russo-Japanese War) at the cottage he had built on the property.

Thinking about all the colorful people of Creek Farm's past is a great way for kids to think about how they are now part of this place's story, too, Signorello said.

"That makes their learning about their impact on the natural world more personal and hopefully strengthens the understanding that they are sharing this world with all the other human beings that are on it," she said.

Hosting the River Rats Camp was part of a bigger Forest Society goal of utilizing Creek Farm more fully and more creatively as a community resource. Signorello has been reaching out to community groups to explore more partnerships and has coordinated a series of summer events there.

These events were as diverse as the property: Yoga overlooking the tidal creek; a "Tree-ID" walk; a beekeeping workshop; a family fun day; guided hikes. More events and potential partnerships with community groups are in the works, as are more activities for engaging young Gundalow Company campers next summer.

"The Gundalow Company is an ideal partner for the Forest Society in the Seacoast given their commitment to fostering environmental stewardship through education," said Jack Savage, vice president for communications/outreach. "And it's great to see Creek Farm used to grow the next generation of conservationists."

—

If your group would like to explore partnering with the Forest Society at Creek Farm, please contact Dave Anderson, education director, at danderson@forestsociety.org. Individuals are welcome to explore the property on their own year-round. Download a trailmap from our Reservations Guide at forestsociety.org.

Bates continued from page 28.

trout habitat of the Cold River. Most importantly to Bates, the piece connects to thousands of acres of conserved land, extending the block of protection to the east of the White Mountain National Forest.

"It's a beautiful river, and it's nice to see it and hike along it, but my primary reason was to connect the trails," Bates said.

Thorburn continued from page 29.

Their piece is pastureland now used for growing hay.

"My view of easements is that unless you have a desire to subdivide, you're not terribly restricted," Jim said. "If I want to run horses on that land, I can, if I want to put a barn up, I can."

The restrictions don't seem overly burdensome, he added, "given the opportunity to participate in creating this green swath of conserved land."

The Thorburns divide their time between Deering and Jackson, Wyo. In Wyoming, they enjoy seeing bear, elk, moose and deer using their property. In Deering, they love to hear the coyotes, see the turkeys and deer and find signs of bears and other wildlife taking advantage of the apple and pear trees they're nurturing.

"It's wonderful wildlife habitat, and that's another reason we wanted to try to help," said Cindy. "We had an opportunity to be stewards along with (the anonymous donor), and we feel very fortunate. It's just absolutely beautiful there and it would be a shame if it was divided up for development."

The 85-acre addition to the Dawson Memorial Forest is mostly forested with oak and white pine. Harvested several years ago, the property will be managed to regrow a healthy forest. With this addition, the Dawson Memorial Forest is now more than 675 acres strong, surrounded by not only the Thorburns' conserved land but also more than 1,000 acres of land conserved through other Forest Society projects, other organizations, the towns of Deering and Hillsborough and private individuals.

State Legislators Make the Case Against Northern Pass's Proposal

The N.H. Site Evaluation Committee, the group of people deciding whether to grant a site permit for the Northern Pass transmission line proposal, held the last public comment sessions on the proposal over the summer. On July 20, several state lawmakers spoke on behalf of more than 100 legislators and former legislators who signed a submitted document opposing the proposal. Taken together, their comments—edited for clarity and length, and excerpted below from the official transcript of the final adjudicatory hearings—present a compelling case for why the SEC should deny the permit in favor of alternative methods of increasing renewable energy supplies in New England.

Members of the SEC listen to public testimony during an adjudicatory hearing in late July. N.H. lawmakers attended to represent more than 100 legislators opposed to Northern Pass's proposal. Among them was Sen. Bob Giuda, who said, "Northern Pass will let New Hampshire be used as a thoroughfare for power to benefit southern New England states."

'Unreasonable' Disfigurement

… In order to issue a siting certificate, the Committee must find that Northern Pass will not have an unreasonably adverse effect on aesthetics or the natural environment.

As currently proposed, Northern Pass would bring 1,090 megawatts of Canadian hydropower to the southern New Hampshire grid on 345 kilovolt lines running 192 miles down the center of the state. Sixty of these miles would be buried in the White Mountain National Forest and upper Coos County. But the remaining 132 miles would be hung from more than a thousand steel towers, rising from 90 to 150 feet above the ground, as high as the golden dome on the State House, but without its aesthetic appeal.

The towers would be among the tallest and ugliest manmade structures in New Hampshire. Some 40 of Northern Pass's above-ground miles would run through a new swath of clear-cut forest and farmland north of the Notches, but even the towers and lines in existing Eversource transmission rights-of-way to the south would rise far above the surrounding forest canopy and town or city skylines, making all of these industrial structures visible to residents and tourists for miles.

At these heights, I believe Northern Pass would literally disfigure the face of our state, and would permanently scar some of our most iconic landscapes, destroying vistas that represent what is most special, most unique about New Hampshire to its residents and visitors alike, our sense of place and the image we seek to project to the rest of the country and the world. It is inconceivable to me that New Hampshire's brand, once signified by the Old Man of the Mountain's craggy profile, could soon be represented by a string of industrial-grade steel towers more popularly associated with the northern New Jersey Turnpike.

I believe any reasonable person, resident or visitor, would consider them individually, and especially collectively, to have an unreasonably adverse impact on the scenic resources of our state.

— N.H. Rep. Neal Kurk

Feasible Other Projects

I (N.H. Sen. Howard Moffett) would like to just emphasize three points about the alleged economic benefits of Northern Pass, compared to two other announced projects … The New England Clean Power Link and the Granite State Power Link.

First, we don't have to destroy New Hampshire's natural beauty in order to bring Canadian renewable energy to population centers in southern New England. Either the New England Clean Power Link or Granite State Power Link would do that without any new damage to New Hampshire's landscape.

Secondly, Granite State Power Link at least would provide temporary construction

and tax benefits to New Hampshire, comparable to Northern Pass, but without the offsetting negative impacts on taxes of the viewshed impacts of Northern Pass. New England Clean Power Link won't do that, because it's being built in Vermont. But both projects would have the same market suppression effect that would allegedly reduce electric rates paid by ratepayers, and, in that respect, the three projects are comparable.

(Rep. Moffet's third point, summarized here for space considerations, was that while Northern Pass has been estimated to save the average ratepayer in New Hampshire $18 per year on their utility bills, Granite State Power Link has estimated its cost savings for average ratepayers to be $21 per year.)

— N.H. Sen. Howard Moffett

Smarter Siting

The townspeople, businesses, and the selectboards of Plymouth have consistently called for Northern Pass Project to be buried along Interstate 93, separate from our thriving Main Street and out of reach of the floods which regularly affect the Pemigewasset River. RSA 162-R, which became law in 2016, designated state energy infrastructure corridors and put into place a procedure that energy transmission projects may route their lines along these corridors. The Federal Highway Authority has approved changes to the New Hampshire Accommodation—Utility Accommodation Manual, which gives the state the authority to implement RSA 162-R.

Burying lines down Plymouth's Main Street will effectively shut down businesses during the busy tourist season, and detour the many drivers coming into town from Interstate 93 to attend concerts and other social events at the university and the Flying Monkey venue.

In May, the Northern Pass construction panel testified that construction to downtown Plymouth would last three months. Well, we all know how far afield construction estimates can be. This Project would wreak havoc during Plymouth State University's graduation, and the return of students in late August. And it isn't just Plymouth. Franconia, Woodstock, North Woodstock—gateway towns to the White Mountains National Forest—would suffer economically while the Project digs up their main streets during the busy summer season. Burying lines along Routes 18, 116, 112, and 3 are also a public safety issue. These roads were built originally as footpaths and carriage roads, and they run along the lowest paths of least resistance along the rivers and streams in the White Mountains. This makes them especially vulnerable to flooding and unsuitable for cable or any other burial. As a side note, Interstate 93 was engineered to avoid flooding impacts.

I'm also very concerned about private property rights of homeowners along these roads. The state does not own all of these roads, but only maintains easement rights. The width of these state easements varies greatly, and in some cases stretch back to the 1700s. Usage and historic record indicates a width of only 33 feet along parts of Route 116. If the roads are not wide enough, will the homeowners involuntarily lose the use of their land, gardens, driveways if the Project is routed along these routes? Will the Project attempt to use eminent domain? I ask the Site Evaluation Committee to look further into the poor choice which is being proposed and consider New Hampshire's energy infrastructure corridors, a better option, in reviewing the Project.

— N.H. Rep. Suzanne Smith

To read the full transcript of the above excerpted comments, visit www.nhsec.nh.gov/projects/2015-06/2015-06.htm

"It is inconceivable to me that New Hampshire's brand, once signified by the Old Man of the Mountain's craggy profile, could soon be represented by a string of industrial-grade steel towers more popularly associated with the northern New Jersey Turnpike."

— Rep. Neal Kurk

THE STATUS OF THE NORTHERN PASS PROPOSAL

By Will Abbott

The N.H. Site Evaluation Committee (SEC) voted unanimously in late August to extend the deadline for making a decision on whether to approve the Northern Pass proposal from September 30, 2017, to March 31, 2018.

The additional time is needed for three reasons: 1) cross examination of Northern Pass witnesses took considerably longer than originally anticipated, 2) there are more than 100 witnesses for the Counsel for the Public and 145 interveners that must be cross examined; and 3) the applicant has submitted thousands of pages of supplemental material since its 25,000-page application was originally filed in October 2015, requiring time for the SEC to review and probe the additional materials.

The SEC anticipates completing the hearing by the end of December, announcing a final decision by February 28, 2018, and completing the final written decision by March 31, 2018.

Permitting decisions by three federal agencies will likely only be finalized if the SEC approves a siting certificate for the project. These three federal permit decisions will be guided by the final Environmental Impact Statement released by the Dept. of Energy in August 2017.

For updates on the regulatory review process, visit the Northern Pass blog at www.forestsociety.org.

The Boneyard

Despite early farmers' attempts, most of New Hampshire is best suited for crops of trees

By Dave Anderson

It was a surprise last summer when a fresh five-acre clear-cut on Roby Road in Sutton revealed unexpected views of Meetinghouse Hill and the Dresser Hills—views unseen for a century or more. In the foreground, a moonscape of granite boulders and ledge outcrops. More granite than soil now lay exposed after the green cloak of forest was removed. The stones remained, right where the glacier left them.

Q: But how could land this bony have ever been cleared for farming?
A: With great difficulty.

In most places, it was cleared for livestock pasture. Quality farmland suitable for tilling and planting to crops or mowing hay is truly scarce in the uplands of central New Hampshire. Where I live in South Sutton, it's often said of raw land: "If it ain't swamp, it's probably ledge."

By contrast, Rockingham County seems flat by mountain standards. Open space of the Southeast New Hampshire region includes rolling fields bordered by old, low stone walls. Former tillage, hay meadows and pastures might be restored relatively easily without excavators and bulldozers to remove stumps and endless stones.

An hour southeast in Exeter, my friend and Forest Society volunteer land steward Dave O'Hearn began mowing to restore one particular 10-acre hayfield and reclaim the edges from 20 years of woodland creep. The entire 29-acre former farm located along the Squamscott River is permanently conserved by a conservation easement held by the Southeast Land Trust.

"As with most homesteads that grow up, it's usually because the owners age and it gets harder to tend their land," O'Hearn said. "I've driven past this one farm my whole life. I remember cows, corn and hay. The barn still has the milking parlor. It was all done by hand."

A tree harvest reveals the typically rocky soil in Sutton, N.H. (top), in contrast to the tillable, flatter soils of the Seacoast region and our state's limited supply of river bottomlands.

Photo (top) by Dave Anderson; photo (bottom) by David O'Hearn.

O'Hearn met with the owners and began reclaiming hayfields and releasing apple trees to create a wider diversity of wildlife habitats to provide food and cover to grow larger numbers of deer, turkeys, woodcock and grouse.

"I can't tell you how much I enjoy mowing while listening to '80's hair band music in the headphones. Last night after parking the tractor, I watched four woodcock come to roost where the field meets the cattails. The deer come closer with each mowing," O'Hearn said.

The soil of southeastern New Hampshire is a sloping plain of well-drained glacial outwash—fine gravel, sand and silt washed off the receding glacier by rivers and collected at the bottoms of long-drained glacial lake beds. In contrast, the soil under South Sutton is glacial till—compacted rubble of stony debris smeared like chunky peanut butter across rounded crushed hillsides still rebounding from beneath a mile-thick sheet of ice just 12,000 years ago. The implications are well known to both farmers and foresters.

The Seacoast grows fine stands of white pine favoring the flat, well-drained soils. The foothills of west-central New Hampshire tend to favor red oak. The pine forests growing on the foothills of Mt. Kearsarge and Mt. Sunapee are inevitably a result of previous land use—pastures grown back to forest. With time and sufficient shade, the forests revert to beech, yellow birch, maple and hemlock.

I tell O'Hearn, "Farmers living down your way, they understand haying. The 'farmers' up my way, they understand logging."

They're similar: shearing off vegetation. The crop rotation in the Kearsarge-Sunapee region foothills is 60 to 80 years versus two- to three cuttings of hay per summer in the open fields of Exeter.

It's just a result of what the last glacier gave us. They got the flesh. We got the bones. In some rocky towns, a history of long-abandoned hill farms is a point of pride.

Robert Frost penned more than a few lines of poetry inspired by the stony New Hampshire landscape, like these from "Directive:"

> *"… May seem as if it should have been a quarry—Great monolithic knees the former town long since gave up pretense of keeping covered."*

Remaining ramshackle farms, sway-backed barns and unkempt fields in rural Rockingham are quaint. Yet in light of robust Seacoast real estate markets, overgrown fields don't seem so destined to revert to encroaching forest as much as they appear poised to disappear beneath creeping concrete and pavement.

If not for intentional land conservation, maybe only the resistant, glacial till of the bony places spells salvation for remaining rural places.

Naturalist Dave Anderson is director of education for the Forest Society. He can be reached at danderson@forestsociety.org or through the Forest Society's website: www. forestsociety.org.

Photos by Jon and Brenda Charpentier.

The land for sale is located between Phoebe's Nable, the hill at left in the photo above, and the trees in the foreground. It is at the center of 2,400 acres conserved by the Forest Society—land that abuts other conservation land held by the State and other local entities.

Saving the Heart

Support the protection of the center of Moose Mountains Reservation

Wouldn't it be a shame to protect 2,400 acres of forest only to lose the land at its center? Forest Society members and friends have an opportunity to make sure that doesn't happen at one of our largest properties, Moose Mountains Reservation in Middleton and Brookfield.

The 90.5-acre private property at the heart of this reservation has been offered for sale to the Forest Society at a price below market value, and the Forest Society is working to raise $164,700 to buy it and permanently protect it as part of the reservation.

Adding this parcel:

Protects the integrity of the reservation: Eliminating the possibility of development of a parcel at the heart of the property will preserve the recreational experience and the continuity of wildlife habitat.

Protects high quality wildlife habitat: According to the N.H. Wildlife Action Plan, 50 acres of this land are ranked Tier 1 (highest quality habitat in the state), and 11.5 acres are ranked Tier 2 (highest quality habitat in the bioregion).

Protects water quality: The Moose Mountains area forms the headwaters of the coastal watershed, and the large areas of conserved land contribute to its pristine nature.

Prevents problem uses: Acquisition of this inholding will allow the Forest Society to control several access roads that have enabled unauthorized vehicle access into the reservation, resulting in damage to the land.

Promotes landscape-scale conservation: Protection of this land could lead to the conservation of other nearby properties that would enhance the Moose Mountains Reservation and the larger protected landscape.

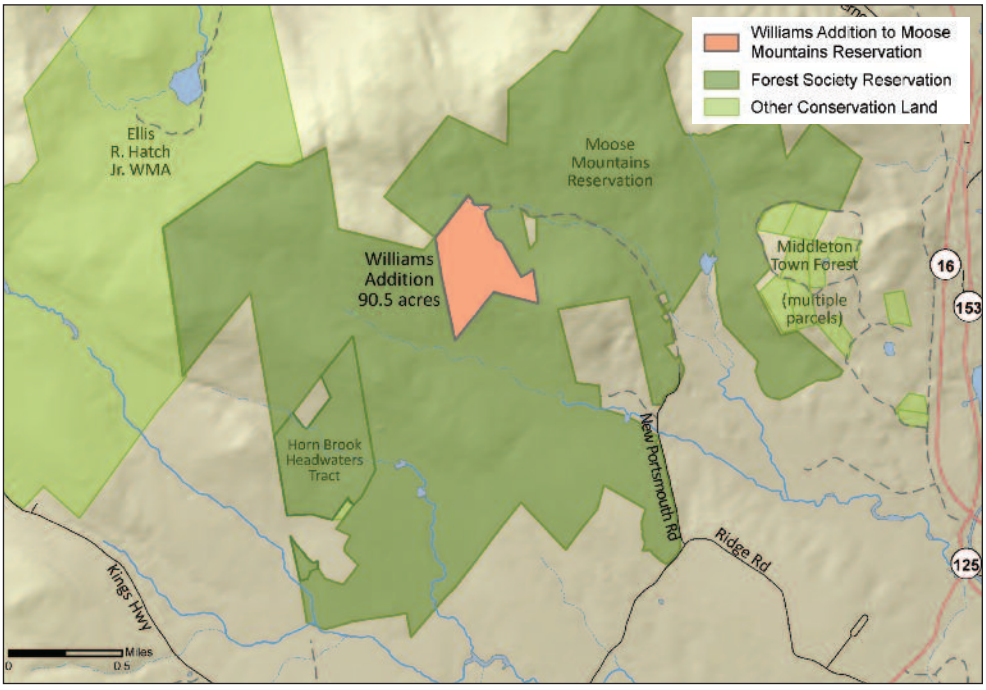
The Moose Mountains Reservation is located between the population centers of the Seacoast to the south and the Lakes Region to the north. Intense development

Woods roads (above left) follow old stone walls and connect to hiking trails that lead to beautiful views of the region. The woods roads provide access to young forest habitat (above right) as well as more mature habitats.

pressures will only increase in the future, making it imperative that we act to secure contiguous wildlife corridors and public access to large natural areas now while we can.

Would you like to help protect this important resource? We have until the end of the year to raise the funds for the purchase through grants and donations.

Please use the coupon below to provide a gift for this project or donate online at www.forestsociety.com/currentprojects. Thank you!



☐ **YES, I WANT TO HELP PROTECT A 90.5-ACRE ADDITION TO MOOSE MOUNTAINS RESERVATION**

Name: _____

Address: _____ Town/City: _____ State: _____ Zip: _____

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☐ Enclosed is my tax-deductible contribution for $_____

☐ VISA ☐ MasterCard Number: _____ Exp. date: _____ Security code: _____

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

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

Thank you for your help!

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THE MANY FACES OF CONSERVATION

Photo by Jeremy Barnaby/www.picturenh.com.

Andrew Cushing
Grafton, NH
Member since 2008

"My childhood home included 50 acres of field, forest, streams, and—thanks to my mechanic grandfather—rusting jalopies. Mom demanded we play outside, so my siblings and I would come home covered in barbed-wire scratches and bee stings, hands filled with salamanders. Payback for our escapades came when we helped Dad with wood splitting and hay cutting.

In high school, the Mascoma Outing Club introduced me to more of New Hampshire's natural world. My friends and I would paddle Grafton Pond, at the Forest Society's Grafton Pond Reservation, reveling in the extraordinary vision and generosity of others. From then on, I knew I wanted to be part of that movement, so I asked for Forest Society membership as a Christmas gift.

I also grew smitten with old buildings. The narratives of New Hampshire's churches, Grange halls, barns and mills are intertwined with those of our landscapes. Working for the New Hampshire Preservation Alliance has made this observation all the more salient. It's a wise investment to protect and properly manage historic and natural resources for the enjoyment of current and future generations.

Knock on wood, I have many more decades ahead of me. It's my intention to leave Grafton and New Hampshire better than how I found them. That's why I'm happy to support organizations whose tenets parallel my own."

MEMBERS MAKE THE DIFFERENCE!

Andrew 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.