

# INTO THE WOODS

NEW ENGLAND FORESTRY FOUNDATION | SPRING 2022

## The Conservation Checklist

**PAGE 3**

---

THE FUN IN  
MOVING FORWARD

**PAGE 7**

---

HOW HEALTHY FORESTS CAN BEST  
MITIGATE CLIMATE CHANGE

**PAGE 9**

---

PHELON MEMORIAL FOREST

**PAGE 11**

---

THANK YOU!

**PAGE 14**

---



NEW ENGLAND  
**FORESTRY**  
FOUNDATION

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## Dear Supporters and Friends,

I'm writing this quarterly Executive Director's letter on the tenth anniversary of when I began working at New England Forestry Foundation (NEFF). A lot has happened in these 10 years. If my count is right, I have written 40 times to you—our treasured supporters, and forestry and conservation advocates. You've heard me say a lot about climate change and NEFF's 30 Percent Solution, which uses forests to mitigate our region's carbon emissions. This will continue to be our top priority at NEFF.

It is now clear that 2030 is truly the date by which we need to have turned the climate boat around to keep it from crashing into shore. Just recently, a report identified New England as one of the places in the world that is warming the fastest. There is no longer time for more debate—only time for action. No more time for me to write to you about wonderful experiences in our forests—those are the things we are about to lose if we don't act now. I only have 36 more quarterly messages to possibly write before the ship crashes on shore. I can't waste any of them.

"And then they were down to Nine.

Years that slipped through their fingers like water through leaves."

We know that many of our forests, particularly in northern New England, could sequester and store a lot more carbon. We've diligently demonstrated and modeled how our Exemplary Forestry™ practices could increase the stocking on all our forests while we increase biodiversity and wildlife habitat and continue to produce forest products. That is the goal—just practice better forestry, conserve forestlands and build more buildings with wood, and we can sequester 30 percent of New England's total energy-related emissions. Combine that advantage with wind and solar, electric cars, energy conservation, green electricity, and energy retrofits of existing structures, and we have a chance. Forestry can be a major part of the climate solution.

Or will New England's carbon stocking levels look the same in 30 years? According to modeling we are currently doing with our partners, it will actually decline unless we change our forestry practices. That is why we need to stay focused, and why we need your help. Will the ultimate chroniclers of this last opportunity to redirect the momentum of climate change look back at us and say:

"They knew the problem and they had solutions, but during the greatest threat to human life the planet has ever known, they failed to act. They couldn't even let their trees grow."

We are not going to let that happen. NEFF is in the midst of working with landowners and other partners to quantify and document the very large carbon sequestration and storage potential of forests managed to our Exemplary Forestry standards. We have willing family landowners and large commercial landowners lined up to help. On page 3, you can read about our process for bringing more land into conservation and under Exemplary Forest management. A new report from Yale School of Forestry identifies how we can potentially finance this dramatic shift to new forestry and we wait expectantly for more important legislation and funding at the state and federal level.

Yes, it is still possible and within our grasp. And NEFF is the right organization, at the right time, with the right solution. Let's make it happen.

Onward!

Robert Perschel  
Executive Director

3 THE CONSERVATION CHECKLIST

7 THE FUN IN MOVING FORWARD

9 HOW HEALTHY FORESTS CAN BEST MITIGATE CLIMATE CHANGE

11 PHELON MEMORIAL FOREST

14 THANK YOU!

## Meet the New President of NEFF's Board of Directors

Rick Weyerhaeuser has been elected President of NEFF's Board of Directors. Philip DeNormandie's term as President ended in December 2021, and he will serve one more year on the Board in a new role as Immediate Past President before rotating off (see page 7). Rick, who is based in Cambridge, MA, initially joined the Board in 1999. He served as Board Clerk from 2013-2020 and Board Vice President from 2020-2021.

"I am really excited to be taking on the role of President at this critical point in NEFF's long, rich history," Rick said. "Climate change is an existential issue and the number-one priority facing the planet, and NEFF's 30 Percent Solution provides a highly significant and cost-effective way to make a real difference in our regional context. Natural solutions are the low-hanging fruit in this battle, and NEFF accomplishes more conservation with fewer financial resources than any other organization that I am aware of."

Currently, Rick is Senior Natural Resource Strategist for Sonen Capital, a San Francisco-based impact investment firm. From 2011-2014, he was Co-managing General Partner of Sustainable Resource Fund, a start-

up that combined forces with Sonen in 2014. Prior to that he worked for 12 years as Director and Senior Project Manager for The Lyme Timber Company in Hanover, NH.

Rick has also worked with The Pinchot Institute for Conservation and The National Fish and Wildlife Foundation to develop and promote sustainable forestry programs in the U.S., has served as State Director of the Massachusetts Chapter of The Nature Conservancy, and for ten years was Director of the World Wildlife Fund's Africa Program. He was a founding board and former executive committee member of the National Alliance of Forest Owners and has also served on the Boards of the Minnesota Chapter of The Nature Conservancy, The Center for Large Landscape Conservation in Bozeman, MT, and the Student Conservation Association, in Charlestown, NH. Rick is a member of the

Leadership Council for the Yale School of the Environment where he earned a Master of Forest Science in 1983; he also received a B.S. from Yale College in 1977.



# THE CONSERVATION CHECKLIST

WRITING BY

Tinsley Hunsdorfer, NEFF Communications Manager

## What characteristics make a land parcel the perfect candidate for conservation at NEFF?

When conservation staff members evaluate a forestland for potential protection by New England Forestry Foundation (NEFF), they set out to determine two key things: would protecting the property further any of NEFF's specific suite of conservation priorities, and is the woodland a good and feasible fit for NEFF?

To answer these questions, conservation staffers embark on a journey to get to know the property, which can involve multiple cross-region road trips to visit and then walk the forestland, phone calls and emails with the landowner, digging up old property deeds, reviewing land surveys, and hoping that no one involved in this process gets stuck in a snow bank if work is ongoing in winter months.

If NEFF decides to move forward with a land protection project once this information is in hand, conservation staffers fill out a formal Land Protection Project Evaluation, which includes a list of NEFF's nine conservation priorities—goals like, "protect wildlife habitat." For each priority, staff gives the property a score indicating how much protecting it would further NEFF's priorities; a high combined score across priorities means the property is a good fit for NEFF's conservation program and its protection would be in keeping with NEFF's mission. The evaluation then heads to NEFF's Board of Directors for review and a vote.

Let's take a walk through the conservation priorities list—and learn about some remarkable forestlands along the way.



**Priority 1:** Conserve high-quality, productive forestland that is well suited to forest management

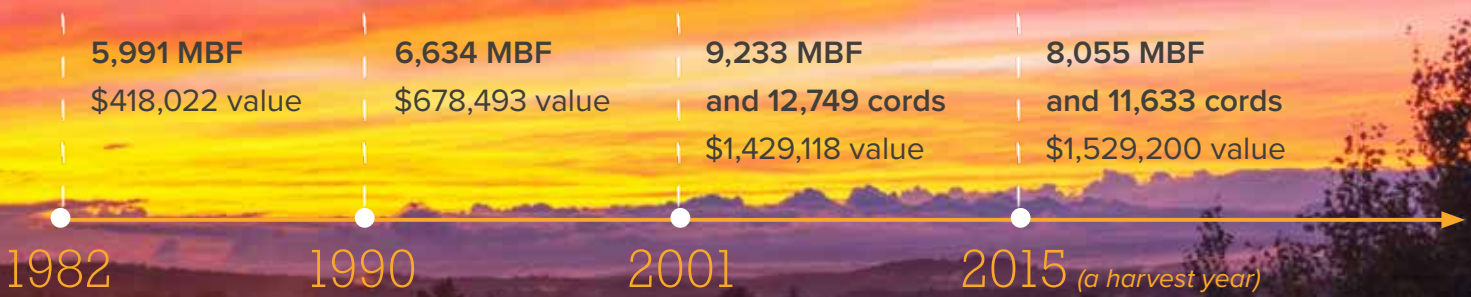
**Case Study:** Deland Memorial Forest  
Protected 1990 • 883 Acres • New Hampshire

While NEFF has seen much growth and change since its 1944 founding, developing and practicing high-standards sustainable forestry—now Exemplary Forestry—on private lands has always been at the heart of NEFF's work. It therefore seems appropriate that the conservation priority at the top of the list is protecting high-quality and productive working forests.

Deland Memorial Forest—and an adjacent 865 acres protected through 10 NEFF easements and NEFF's Townes Memorial Forest—earns top marks for this priority thanks to its size and glacial outwash soils, which allow Deland to consistently produce high-quality timber. These soils are well-suited to growing white pine; more than 2.7 million board feet of timber have been harvested from Deland since 2000, and about 85 percent of it was white pine. As noted on the next page, the property's timber is valuable—unusually so for NEFF lands. NEFF uses harvest income from Deland and other Community Forests to fund NEFF's work.

As with all NEFF properties managed to Exemplary Forestry standards, Deland's stocking remains high at more than 20 cords per acre when wetlands are removed from the total acreage count.

# Deland's In-Forest Timber Volume and Value Over Time



**MBF:** a measurement unit for wood volume equivalent to 1,000 board feet. Wood measured in board feet is of high quality.

**Cord:** a measurement unit for wood volume equivalent to that found in firewood stacked 4'x4'x8', or 128 cubic feet of wood. One cord equals 1.5 MBF. Wood measured in cords is usually pulp- or pallet-grade.

Charlie Reinertsen



**Priority 2:** Protect large, contiguous forested landscapes throughout New England

**Case Study:** Nichols Memorial Forest Protected 1981 • 434 Acres • Vermont

Short of protecting an entire landscape in one fell swoop—as NEFF's Pingree and Downeast Lakes easements did—how does NEFF contribute to conservation on this scale? By prioritizing forests located near or next to other large blocks of conserved land.

Located about 10 miles north of Manchester, NEFF's Nichols Memorial Forest is bordered by Green Mountain National Forest and Emerald Lake State Park, which means the property is adjacent to about 822,000 additional protected acres of immense ecological and recreational value.

Nichols is certainly a hit with hikers, but its adjacency to these other protected lands has mostly benefited ecosystem health and wildlife. The property supports a vernal pool and deer overwintering habitat likely used by animals who wander in from neighboring lands; its stream is a tributary of the clear and quick-running Otter Creek, which flows into Emerald Lake State Park and then on into the national forest; and a bat hibernacula—an enclosed space where bats overwinter—was located near Nichols as of 2017.



**Priority 3:** Help private landowners maintain ownership of working forests

**Case Study:** Serafin Conservation Easement Protected 2019 • 365 Acres • Connecticut

This priority only applies to projects where a landowner decides to prevent future development of their property by placing a conservation easement on it, while maintaining ownership. Pingree and Downeast Lakes may be NEFF's most high-profile easements, but easements are useful for much more than landscape-scale conservation. This includes serving as an estate planning tool that guarantees protection for beloved woodlands after an owner's death.

NEFF staff saw this process play out in recent years with John Serafin, who for decades had tried to find a way to protect his family's woodland from development, but was held back by the land survey costs involved. He met up with NEFF representatives in 2015 at an estate planning forum sponsored by the MassConn Woods partnership, and NEFF staff helped him apply for a small grant from the MassConn Regional Conservation Fund that allowed him to move forward with conserving his woodland. Despite some health challenges, John's goal finally became a reality with the recording of a conservation easement to NEFF in December 2019.

Everyone at NEFF was saddened to learn John had passed away this summer. John's son David has inherited the property, and he represents the fourth generation to own this beautiful Connecticut forest.



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NEFF's Pine Knob Conservation Easement is home to Snowshoe Hare. Landowner Sumul Shah took this photo of a hare in its summer coat, and a hare in its winter coat is shown to the right in an image captured by a recently installed wildlife cam. Snowshoe Hare are the key prey species for Canada Lynx, and their presence on the property is a sign that lynx might someday make an appearance.



#### Priority 4: Protect land that adds to existing featured NEFF Community Forests

**Case Study:** Phelon Memorial Forest  
Protected 1973 • 945 Acres • Massachusetts

NEFF expands its featured Community Forests, or its larger Community Forests with amenities like parking and scenic vistas, for a variety of reasons—from a neighboring property owner wanting to sell their land to a trusted conservation organization, to NEFF deciding to help contribute to a wildlife corridor—and in ways that are more cost effective than buying similar acreage as standalone parcels.

As readers will discover on page 11, NEFF's Phelon Memorial Forest is composed of two donated adjacent properties, the first gifted to NEFF in 1973 and the second in 1984. NEFF's protection further extends to three easements totaling 740 acres that border Phelon—two owned by Hull Forest Products and one by the Town of Granville—and the nearby 70-acre Clendenin Memorial Forest, donated to NEFF by the Clendenin family in 2019.



#### Priority 5: Demonstrate Exemplary Forest Management to landowners and local communities

**Case Study:** Prouty Woods Community Forest  
Protected 2003 • 118 Acres • Massachusetts

As all NEFF Community Forests technically serve as demonstration sites for Exemplary Forestry, staffers are looking for one of two things when evaluating a potential forestland for this priority: if it's easy to access and in a somewhat populous area, or if it's a large parcel that allows Exemplary Forestry to be demonstrated at scale.

Prouty Woods Community Forest gets top marks for that first option: it's a forest that's easy for lots of people to visit, and it's also well-known thanks to serving as NEFF's headquarters. Prouty is scheduled to be harvested within the next two years, which presents NEFF with an incredible opportunity to demonstrate Exemplary Forestry.



#### Priority 6: Protect wildlife habitat

**Case Study:** Pine Knob Conservation Easement  
Protected 2016 • 792 Acres • New Hampshire

When evaluating a property for this priority, conservation staffers aren't just looking for quality habitat—or the potential for future quality habitat—but a quality mix of habitat types that can support a broad range of species. NEFF only sets out to conserve specialty habitat needed by target imperiled wildlife when the critter in question won't actually live on NEFF land, as with NEFF's Downeast Community Forests that support healthy salmon populations by filtering and cooling river water.

Maudie and Sumul Shah's astonishingly beautiful, 800-acre property in northern New Hampshire is a habitat slam-dunk.

Protected by a NEFF easement granted by previous owners Tanya and Dave Tellman, the property is home to a mix of habitat types, including spruce-fir and mixed northern hardwood-conifer forests of different ages, small areas of old-growth northern hardwoods, vernal pools, four small streams, and 130 acres of wetlands in eight complexes—one of them a 28-acre Black Spruce and tamarack wetland complex the Shahs call "The Bog." These diverse habitat offerings paired with responsible forest management have created quite the wildlife hotspot, which recently prompted a NEFF stewardship staffer to install remote wildlife cams on the property. Wildlife further benefits from an adjacent 180-acre easement also protected by the Tellmans in 2017.

Of the many species Maudie and Sumul have spotted, their favorites include Bobcat, North American Porcupine, American Marten, Snowshoe Hare, Long-tailed Weasel in its winter coat, Barred Owl, Broad-winged Hawk, Pileated Woodpecker, Wood Frog, and "lots of interesting insects."

Look for more about the Shahs' woodland and wildlife cams at [newenglandforestry.org/connect/blog](https://newenglandforestry.org/connect/blog)



Braintree Mountain Forest, photo by Charlie Reinertsen



**Priority 7: Protect the ecological benefits of forests, including clean water, clean air, clean soil, and carbon sequestration**

**Case Study:** Keene Whitman Memorial Forest  
Protected 1996 • 622 Acres • Maine

Similar to priority 5, all NEFF Community Forests—and all NEFF easements as well, in this case—protect forests’ ecological benefits simply by being forestlands under conservation. What gets a NEFF project better marks for this priority? If the forestland in question helps protect these benefits beyond its property lines.

A small, unnamed brook runs through the Keene Whitman Memorial Forest, and it feeds directly into Lake Auburn, which is the water supply for the cities of Auburn and Lewiston. NEFF’s woodland filters and cleans water before it joins the brook and larger watershed, and NEFF ensures responsible management around the brook itself.



**Priority 8: Protect the land base in areas with intact forestry infrastructure to support New England’s forest-based industry**

**Case Study:** Merrill Mountain Community Forest  
Protected 2019 • 353 Acres • Maine

As an organization that grows, harvests and sells timber, NEFF wants to see New England’s forest-based industries thrive in increasingly climate-smart ways. Supporting these industries also benefits NEFF’s Forest-to-Cities Climate Challenge, which is working to link mass timber buildings in New England with local forests that sustainably generate the wood for them. The region’s forest-based industries and workforces have a critical role to play in this process.

NEFF has a number of properties near some element of forestry infrastructure, but its Merrill Mountain Community Forest falls in a sweet spot. Located in southwestern Maine’s dramatic Hiram Hills, Merrill Mountain primarily features white oak, red oak, and white pine. The property’s location and white pine stands make it a perfect fit for a conservation priority about forestry infrastructure, because long before NEFF received Merrill as a donation from James Donovan, a 2009 NEFF White Pine Heartland initiative identified five select pine mills in the Community Forest’s area, and four are still in business.

With this concentration of mills comes a reliable forester, logger, and trucking workforce that NEFF doesn’t often encounter near other Community Forests.



**Priority 9: Provide opportunities for recreation**

**Case Study:** Braintree Mountain Forest  
Protected 2013 • 1,547 Acres • Vermont

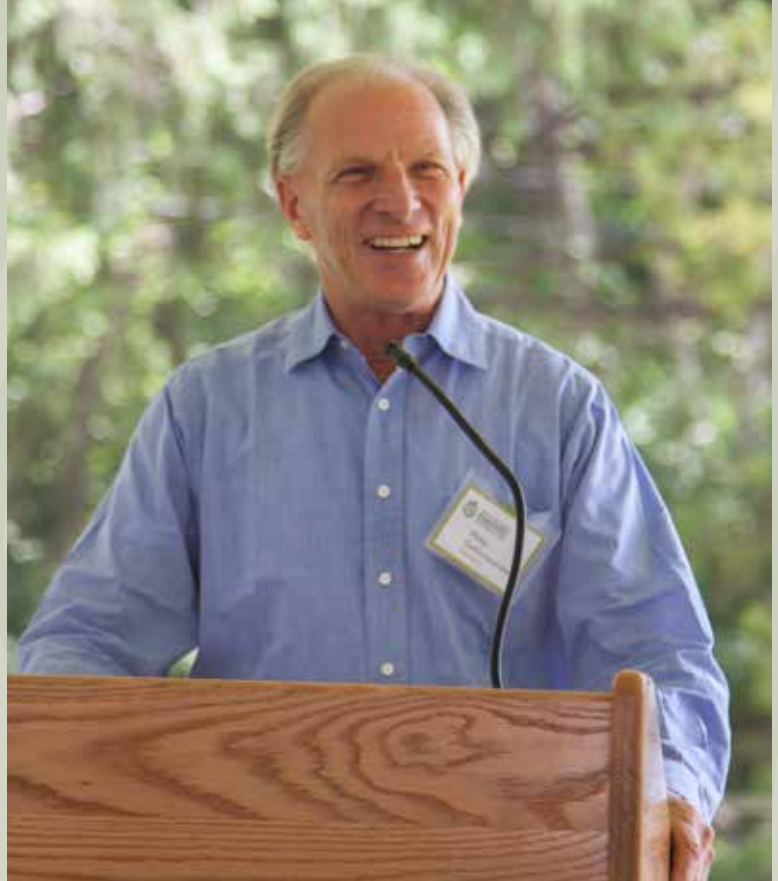
NEFF has made its commitment to providing outdoor recreation opportunities clear by choosing to call its owned lands Community Forests. They’re meant to be community resources, and are free to visit and open daily from dawn to dusk. So long as visitors follow NEFF guidelines, NEFF permits hiking, snowshoeing, cross-country skiing, trail running, biking, walking leashed dogs, and horseback riding on all its properties; hunting and fishing are permitted at most NEFF properties in accordance with individual state law.

Given that all Community Forests offer recreation options, what does it take for a property to get top marks for this priority? Something unique.

While cross-country skiing is allowed on all NEFF properties, visitors can only ski downhill in one location: Braintree Mountain Forest, which sits in the Braintree Range and includes four peaks. Thanks to a partnership with the Ridgeline Outdoor Collective (ROC), Braintree has trails and glades for backcountry skiing, and a challenging 1,000-foot slope. ROC began working with NEFF in 2014 to develop glades and trails along the peaks’ eastern flanks, and their leadership and volunteers have made sure skiing infrastructure and activity don’t interfere with forest management activities. 🌿

Philip was and remains  
one of NEFF's greatest  
ambassadors.

Philip DeNormandie speaking at a NEFF Annual Meeting  
Photograph by Charlie Reinertsen



## Early Encounters

It turns out NEFF has been a part of Philip's life since his elementary school days.

In NEFF's first few decades, one of its top priorities was educating interested parties about professional forestry as an alternative to destructive harvesting techniques, and so the organization held outreach events and field trips that demonstrated NEFF's sustainable approach to forest management.

"In the 1950s, when my family's farms were going, my father and I went to New Hampshire for a New England Forestry Foundation field trip," Philip said. "I know we visited a demonstration woodlot, but what really stuck out to me was seeing an old-fashioned sawmill that was probably a pretty dangerous operation, but exciting to visit when you're under 10 years old—I had a lot of fun."

While Philip may not have fully focused on the forestry information NEFF staff shared during the field trip, he remained aware of NEFF throughout childhood and into his adult years—and his career in real estate—and regularly hired NEFF foresters to work on his lands.

"I ended up in touch with a few folks at NEFF over the years, including past Deputy Director Tim Storrow," Philip said. "I was always interested in hearing about their work at NEFF, but never expected to be part of it."

Then in 2002, Storrow asked Philip to join the Board, and he immediately said yes.

The first major project Philip tackled was the acquisition of NEFF's Prouty Woods Community Forest and the Prouty family home, which now serves as NEFF's headquarters. He stepped in and took a leadership role on the committee tasked with raising money for the purchase, and proceeded to meet the fundraising goal.

## Leading by Enabling Risk-Taking

A few years after Philip became Board President in 2015, he dove into another transformative capital project, one where "the goal was to buy some sizeable timberland where NEFF could demonstrate a number of things, including good management techniques."

"As President, I felt my role was to put a reasonable amount of constant pressure on the organization to make sure NEFF met its goals and objectives, and also to get the staff and Board to really stretch themselves and take risks with the potential to advance our mission and push NEFF to new heights," Philip said. "The Downeast Woods and Wildlife project ended up being the big stretch of my tenure, and I'm incredibly proud of what NEFF and its partners accomplished."

The initial aim of the project was to purchase and protect sizeable forestlands along the Denny's River,



# THE FUN IN MOVING FORWARD

LEADERSHIP PROFILE

WRITING BY Tinsley Hunsdorfer, NEFF Communications Manager

Philip DeNormandie—an integral member of the NEFF community, a champion of New England land conservation, and a driving force behind key NEFF successes—completed his tenure as President of the NEFF Board of Directors in December 2021, and will now serve one year as Immediate Past President, a new role, before rotating off the Board. Learn what first brought Philip to NEFF, and then look back at what NEFF has accomplished under Philip's leadership.

whose waters—kept cool and clean by riverside forests—provide critical habitat to Maine's endangered Atlantic Salmon population and other cold-water fish.

When Downeast Woods and Wildlife came to a close in December 2020, NEFF had reached three times the project's original conservation goal by protecting four Downeast Maine forest parcels—including Holmes Stream Community Forest, pictured on the front cover—totaling 9,150 acres. This meant NEFF added more acreage to its network of Community Forests in 2020 than any previous year.

This wasn't the only ambitious project to launch during Philip's tenure by a long shot.

"Everyone at NEFF has a lot to be proud of, from the Pooled Timber Income Fund and its very interesting way of preserving timberland, to the 30 Percent Solution and our suite of climate-solutions initiatives," Philip said.

"I just think that over the last five, six, seven years we've taken a number of

crucial steps that are going to put NEFF in the forefront of a lot of fields."

Philip is particularly excited to see how NEFF's Exemplary Forestry management and innovative conservation finance programs can benefit the timberlands of northern Maine by improving carbon sequestration as well as profitability of wood products. NEFF's approach gives commercial and family landowners a path forward by growing their forests longer and transitions from pulpwood to sawlogs that can store wood in longer-lived products and mitigate climate change.

"As President, I aimed to set ambitious yet realistic goals we could accomplish without exhausting ourselves, and that's helped get NEFF in a really good place," Philip said. "NEFF is poised to do great things, and the enthusiasm is there, the right staff is there, our Board is better than it's ever been, and the momentum is there—and I certainly hope that momentum continues. Frankly, it's more fun to be at an organization that's moving forward than sitting still."

## Leading by Example

Philip was and remains one of NEFF's greatest ambassadors. While Board President and serving as a key member of the Campaign Leadership Committee for the Downeast Woods and Wildlife project, Philip's personal generosity and congenial fundraising approach led the pace and inspired others to set their sights higher.

"At this critical moment in the climate crisis, Philip has left an important legacy to those of us who will carry on his work at NEFF, and I thank him for everything he has done for our organization," said NEFF Executive Director Bob Perschel. "His leadership has allowed NEFF to focus its attention on climate change, the issue of our generation and generations to follow, while also helping us accomplish a major conservation win in Downeast Maine. In the years to come, I hope he enjoys watching how his contributions to forest conservation and management allow New England to both protect and use its forests to offset our region's carbon emissions." 🌱

# HOW HEALTHY FORESTS CAN BEST MITIGATE CLIMATE CHANGE

WRITING BY Bob Perschel, NEFF Executive Director

When we look for ways to grow healthy forests in the context of climate change, it is important to ask the right questions. Some people think the right question is, how much carbon can you store in a forest?

But forest health is much more complex than that, and finding the best pathway to mitigating climate change while protecting ecological values requires a systems approach and a systems-based question. Forests are intricate ecosystems that don't just yield a single useful service—carbon sequestration and storage—but instead provide a wide range of ecological values and benefits, including clean water and air, opportunities for recreation, and bio-based forest products that help us move away from fossil fuels.

When protecting and managing forests, we need to balance critically important carbon storage with these other important values, particularly at a time when we're losing biodiversity and facing an extinction crisis.

Some people think the best way to grow forests to mitigate climate change is to stop all harvesting, but that's not the case, and the United Nations Intergovernmental Panel on Climate Change (IPCC) agrees—climate-smart forestry yields the best result. Under climate-smart sustainable forestry, forests remain healthy and biodiverse while simultaneously sequestering high levels of CO<sub>2</sub> and providing bio-based forest products that can be substituted for climate-polluting materials like concrete, steel and plastic; they also produce everyday products like furniture, flooring and toilet paper that should continue to be made from forest products. If New England were to halt harvesting, local wood that went into those products would just be harvested elsewhere, likely in places with less stringent environmental regulations, meaning global CO<sub>2</sub> levels would rise even as New England claimed a carbon-storage victory.

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## THE UNITED NATIONS AND FOREST-BASED CLIMATE SOLUTIONS

The IPCC August 2019 Special Report\* states, "A sustainable forest management strategy aimed at maintaining or increasing forest carbon stocks, while producing an annual sustained yield of timber, fiber or energy from the forest will generate the largest sustained mitigation benefit."

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To really understand how to grow healthy forests while doing everything we can to mitigate climate change, we have to consider our forests in the context of our global economy and the many factors that influence climate outcomes.

Here's the shocker when we apply this thinking to our New England forests: based on research conducted at NEFF and by partner organizations, New England can actually store more carbon in our forests than we are currently—and in some parts of New England, we can nearly double the current amount—while supporting the full range of forest ecological values through an integrated approach linking high-level forest management to forest conservation and protection of wildlands, or biological reserves that aren't harvested.

\*The IPCC quote is taken from "Climate Change and Land: an IPCC special report on climate change, desertification, land degradation, sustainable land management, food security, and greenhouse gas fluxes in terrestrial ecosystems." Access the report at [www.ipcc.ch/srcccl](http://www.ipcc.ch/srcccl)

NEFF's research shows that carbon-aligned Exemplary Forestry combined with conserving forests, and increasing the use of local, sustainable mass timber in tall buildings can offset fully 30 percent of New England's required reductions in energy-related emissions in the next 30 years (see page 14). The practice of Exemplary Forestry contributes the lion's share of the 30 Percent Solution's savings, all while preserving forests' ecological values and benefits, and improving urban housing's quality and affordability. This is more than can be accomplished by simply halting all harvests or continuing business as usual.

At NEFF, we believe we need to ask the right question, and it sounds like this:

*How can humans obtain the necessary resources for this and future generations to flourish sustainably while stewarding the biological diversity of the planet? How can forests help?*

Our answer for forests is to set some lands aside as wild places, manage the rest according to Exemplary Forestry standards that increase the carbon in the forest while biobased products are produced, and then wholistically implement the 30 Percent Solution.

We are working with Highstead Foundation on a more intensive look at these opportunities and their analysis also confirms there is a tremendous climate opportunity in New England forests. The study's results will be available in the coming months.

Photo by Lauren Owens Lambert



## Consumption of Fossil Fuel-Based Products

Our global economy is heading in the wrong direction on the use of fossil fuel-based products\* vs. bio-based products. Here are the numbers for rate-of-increase in product consumption from 1961 to 2017, when global population grew 2.45 times:



Data from *An Introduction to the Circular Economy: Opportunities for Natural Resources and the Forest Sector*. Dovetail Partners, 2020.

We are aware some people think the best use of all forestland for climate mitigation is to just leave it alone in a forever-wild condition. That conclusion is the result of not asking the right question and failing to take a systems approach to this complicated problem. In a world with no people, that might work, but in a world where we have to reduce atmospheric carbon, assure the survival of our global ecosystems and ensure the wellbeing of our global human population, it just doesn't make sense.

With long-term forest health as the guide, at NEFF we are thinking about redefining the recently coined concept of "proforestation" so it encompasses both wildland conservation and climate-smart forestry instead of pitting Exemplary Forestry against achieving long-term forest health, and portraying it as somehow less of a climate solution. Exemplary Forestry is precisely designed to do exactly this—improve forest health, increase biological complexity, and maximize carbon storage. But Exemplary Forestry goes one step further than "proforestation"—it seeks

these goals in the context of human society and economy. Both schools of thought are "pro" forests. Both seek to improve and sustain healthy, diverse ecosystems. Both seek to maximize carbon sequestration and storage. Both recognize the need to create more wildlands. But NEFF is also thinking about the role of forests and forest products in helping to wean us from a fossil fuel-based economy and ensure a global decrease in CO2 emissions, not just of emissions in New England.

These combined meanings of proforestation are aligned and complimentary, and forest advocates need to work as partners to figure out how to simultaneously use forests to fight the climate crisis and the biodiversity crisis. But leaving all our forests alone is not the best approach for climate change. When we ask the right question and apply a systems approach to climate, studies indicate managing forests wisely with Exemplary Forestry gives us the most climate benefit in the next 30 years, and the U.N. agrees. 🌿

FEATURED COMMUNITY FOREST

# PHELON MEMORIAL FOREST

WRITING BY Tinsley Hunsdorfer, NEFF Communications Manager

## LOCATION

Granville, MA 

## SIZE

945 acres 

## AMENITIES

Trails 

Parking 

Scenic Vistas 

Rivers and Streams 

Located a few miles from Tolland and Granville State Forests in southwest Massachusetts, NEFF's Phelon Memorial Forest is a beautiful property with deep woodlands that open up to astonishing views, all interwoven with a trail system ready to carry visitors to a range of fascinating features.

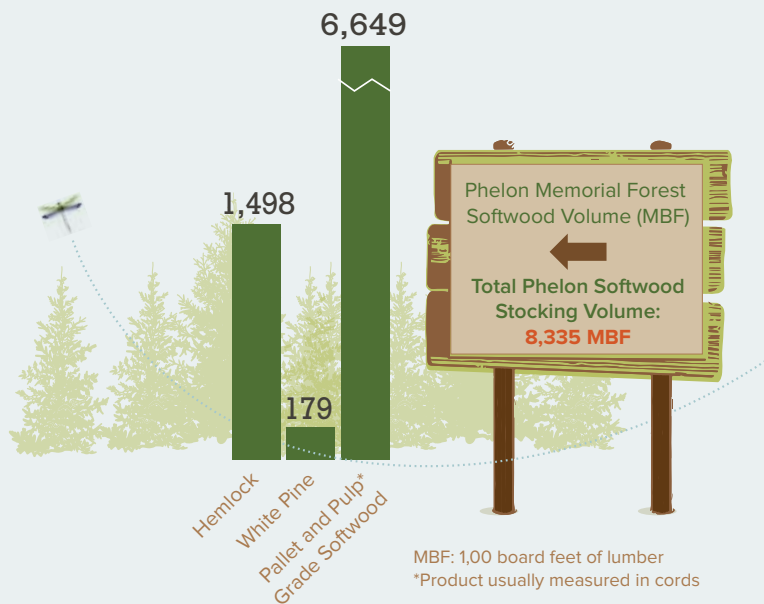
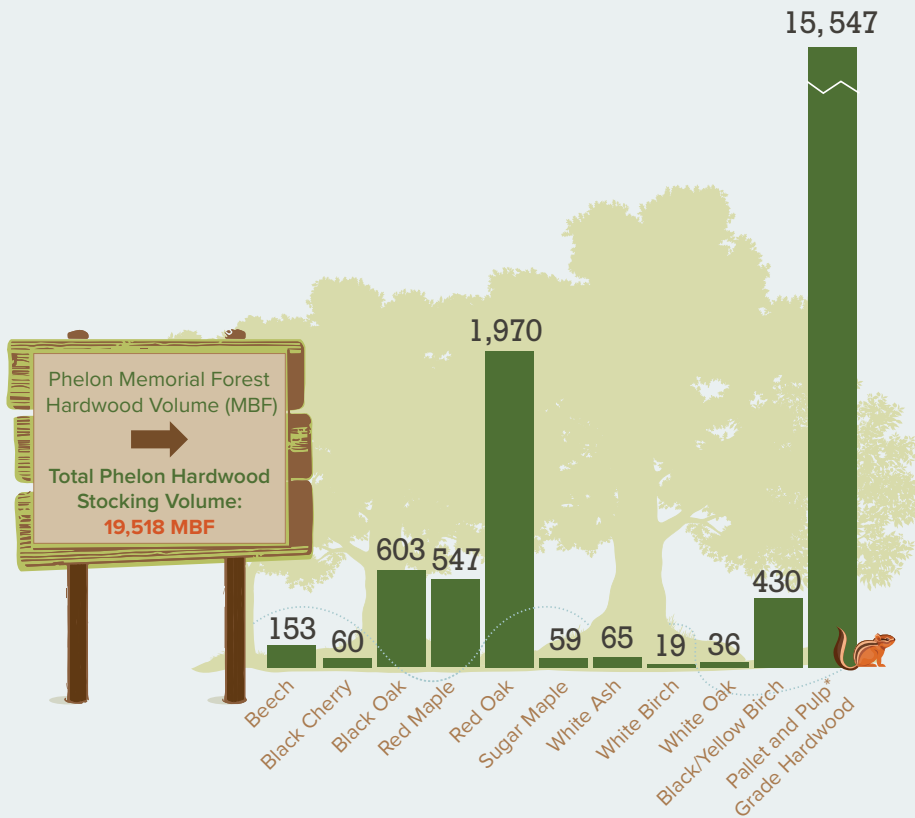
The property's 1,487-foot summit allows visitors to see into five different states on clear days (see back cover photo), and it becomes an even more awe-inspiring spot during seasonal raptor migrations, when birders and field biologists settle into the hillside to count birds and watch a wonder of the natural world unfurl. Hawks like the Broad-winged Hawk, Sharp-shinned Hawk and Red-

tailed Hawk make up the bulk of the hill's sightings, and birders on the hill once counted 2,406 migratory Broad-winged Hawks on a single day. Phelon Memorial Forest is mostly made up of hardwoods like oaks, maples and birch, which also means the forestland is a great place to witness another set of seasonal changes—spring leaves unfurling and autumn leaves taking on flame-like hues.

Photos by Charlie Reinertsen

## Hardwood and Softwood Volume at Phelon

NEFF conducted a timber inventory of Phelon Memorial Forest in 2021, a process that produces an estimate of the total volume of wood growing on a property per species for larger trees, and per product type for young trees too small to be used for sawlogs.



### BLUEBERRIES AND THE CREATION OF PHELON MEMORIAL FOREST

Phelon Memorial Forest is the result of two separate donations made by Mr. Douglas M. Rice and Mr. Russell E. Phelon. Mr. Rice made the first gift when he donated 40 acres—then called the Holden-Rice Memorial Forest—to NEFF in 1973. Mr. Phelon went on to donate his nearly 1,000-acre adjacent property to NEFF in 1984. He wanted the forestland to remain productive while also maintaining a blueberry crop on its open acres.

NEFF has accomplished Mr. Phelon's goals through the Exemplary Forest management outlined in this article and by leasing acres devoted to blueberries to a commercial grower. By providing just enough distance between Phelon's scenic viewpoint and the surrounding forestland, those very same blueberry fields are what make Phelon's hawk-watching and long-distance views of the landscape possible, which is why the summit has come to be known as Blueberry Hill.

These hardwood stands make the property an excellent proving ground for NEFF's new Exemplary Forestry standards for Central and Transition Hardwoods. As noted in NEFF's winter 2021 newsletter, hardwood forest types play a bigger role in NEFF's more southerly Exemplary Forestry standards because southern New England represents the transition area between the Acadian Spruce-Fir forests to the north and the deciduous (hardwood) forests to the south. Phelon is primarily made up of Oak-Pine, Hemlock, and Oak-Hickory—although it's low on the hickory—forest types, or three of the five types accounted for by the Central and Transition Hardwoods standards.

Visitors can get a look at these types from Phelon's trail system, which leads through dense hemlock stands, regenerating hardwood patches and mixed oak-pine stands, and then continues on to intermittent streams, a perennial stream and waterfall, and two overlook points.

While exploring the woods, visitors should keep an eye out for signs of wild animals. Raptor migrations aren't the only interesting wildlife happenings at Phelon.

Simply by being managed to Exemplary Forestry standards, Phelon Memorial Forest provides excellent forest wildlife habitat, or as forester Tony Lamberton put it in the Phelon management plan he created for NEFF, "this property has a high diversity of species because of the diversity in the forest structure." Phelon has varied forest habitat types, ranging from early and mid-successional forests to mature hemlock stands—and these types have additionally been managed to contain a range of tree ages and sizes. Foresters working at Phelon have heard Ruffed Grouse drumming, observed turkeys and heard their mating calls, and seen signs of moose and deer. NEFF staffers have observed a number of native birds, reptiles and amphibians.

Since NEFF took ownership of the full property in 1984, there have been 10 harvests on Phelon Memorial Forest. Harvesting has been a mix of intermediate thinning earlier in NEFF's ownership combined with some regeneration harvests more recently. Since 1999, Exemplary Forestry management has doubled stocking on the property from 10 to 20 cords per acre, while NEFF simultaneously harvested more than one million board feet and 1,751 cords of firewood. That's enough wood to frame 66 houses. So, not only has in-forest carbon sequestration doubled under NEFF's management, but additional carbon has also been stored in the products made from Phelon-harvested wood, and all while creating a diversity of wildlife habitats across the property.

These characteristics make Phelon an excellent real-world example of NEFF's 30 Percent Solution, a forest-based approach to mitigating climate



Visitors can get a look at these types from Phelon's trail system, which leads through dense hemlock stands, regenerating hardwood patches and mixed oak-pine stands, and then continues on to intermittent streams, a perennial stream and waterfall, and two overlook points.

change that combines four key strategies: preventing net loss of forests, spreading the practice of Exemplary Forestry, replacing steel and concrete with low-carbon construction, and storing carbon in wood buildings.

NEFF's analysis of this approach in New England shows it could keep more than 646 million metric tons (0.65 gigatons) of CO2 out of the atmosphere over the next 30 years, or nearly one-third of the total energy-related CO2 emissions New England needs to eliminate over the next several decades. The 30 Percent Solution would simultaneously improve wildlife habitat, allow continued forest recreation, improve the quality and affordability of urban housing, and more. 🌿

Learn more at [newenglandforestry.org/learn/initiatives/30-percent](https://newenglandforestry.org/learn/initiatives/30-percent)



# THANK YOU!

**Did you know NEFF is one of the three largest land trusts in the nation by acres**

**conserved?** Your support helped NEFF achieve that status. Generous support from individuals and organizations has helped NEFF to conserve 1.2 million acres of forestland and to continue its innovative work to advance conservation and Exemplary Forestry throughout New England. With your continued support, we can ensure that New England forests make their greatest possible contribution to abating damaging climate change.

Your contributions are greatly appreciated and are vital to our ongoing success. Visit [newenglandforestry.org](https://newenglandforestry.org) and click the donate button, or return the enclosed envelope to make a donation today. Every gift is important to us and helps us fulfill our mission.

## Create a Forest Legacy With New England Forestry Foundation

Please also consider including New England's forests and NEFF in your estate planning. Legacy giving can allow your support to extend even further, while providing tax or other benefits to you or your loved ones. There are many giving options available to meet your financial and family succession goals while also helping to conserve forestland for future generations. NEFF's staff is happy to talk through your options for planned giving and land management, and to answer any questions. Get in touch today to start the discussion and create a legacy.

Visit [newenglandforestry.org/support](https://newenglandforestry.org/support) to learn more about the ways you can support New England Forestry Foundation's work. Together we have the potential to make a real, measurable impact on the climate crisis and forest conservation.

Contact Penny Flynn for more information at [pflynn@newenglandforestry.org](mailto:pflynn@newenglandforestry.org).



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The view from Blueberry Hill at Phelon Memorial Forest  
Photo by Charlie Reinertsen