



# NFWF

## 2016 New England Forests and Rivers Fund Grant Slate

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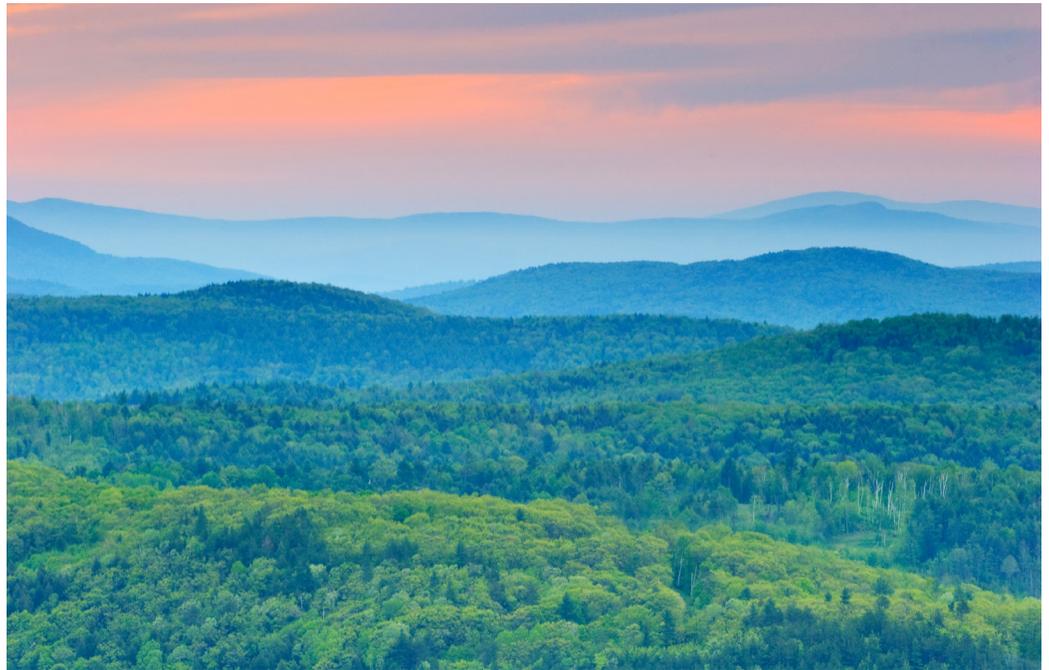
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Green Mountain National Forest next to the Champlain Valley, Vermont

### ABOUT NFWF

The National Fish and Wildlife Foundation (NFWF) protects and restores our nation's fish and wildlife and their habitats. Created by Congress in 1984, NFWF directs public conservation dollars to the most pressing environmental needs and matches those investments with private funds. Learn more at [www.nfwf.org](http://www.nfwf.org)

### NATIONAL HEADQUARTERS

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### OVERVIEW

The New England Forests and Rivers Fund is dedicated to restoring and sustaining healthy forests and rivers that provide habitat for diverse native bird and freshwater fish populations in the six New England states: Maine, Massachusetts, New Hampshire, Vermont, Rhode Island and Connecticut.

The program invests in projects that:

- Strengthen the health of forest systems by improving the management of public and private forestlands to create a mosaic of mixed age forests in the region
- Provide incentives to strengthen habitat conservation on working forests through flexible technical assistance that is appropriate for the forest stage(s) being targeted
- Improve the quality of river and stream systems through targeted riparian and stream restoration
- Reduce barriers to fish passage and increase fish access to high quality habitat, thereby increasing overall aquatic connectivity
- Enhance biodiversity of forest and river systems and increase populations of species representative of system health, such as New England cottontail, American woodcock, bay-breasted warbler, Canada warbler, wood thrush, river herring and eastern brook trout

The 2016 grant slate represents 16 grants totalling \$1,847,508 which will be further leveraged by \$3,983,387 in grantee matching contributions for a total on-the-ground impact of \$5,830,895.

*(continued)*



**RESTORING HEALTHY FOREST SYSTEMS**

The following eight projects seek to restore healthy forests by implementing forest management practices on both public and private lands through one or more of the following strategies: develop forest management planning tools that focus on landscape level implementation, create early successional habitat for New England cottontail, American woodcock and golden-winged warbler; provide outreach and technical assistance to engage private landowners and local governments, demonstrate forest management strategies and practices that enhance late successional and old growth habitat, work with large public and private landowners to adopt pollinator-friendly practices, and assess the economic opportunities associated with thinning and selective cuts. A total of \$846,059 in NFWF funds is being awarded, for a total on-the-ground impact of \$1,799,106.

**1) Enhancing and Promoting Wildlife Habitat on Family Woodlands in the Champlain Valley (VT)**

Grantee: American Forest Foundation  
 NFWF Award Amount: ..... \$47,000  
 Matching Funds: ..... \$47,000  
**Total Project: ..... \$94,000**

The American Forest Foundation will reach out to thousands of family woodland owners in the Champlain Valley of southern Vermont and recruit 400 landowners to implement forest management techniques that enhance the habitat complexity of forest habitat stages, especially young forest habitat, an important biological transition zone, which provides a critical migratory pathway. Methods will include understanding landowner objectives, barriers and benefits to action, serving interested landowners with appropriate technical assistance, and engaging peer landowners to disseminate best practices and the benefits of appropriate forest management.

At least one hundred of these private landowners will implement bird-friendly stewardship activities on their property, totaling at least 2,200 acres managed for golden-winged warblers and other species dependent on young forest habitat in the Champlain Valley.

**2) Recruiting Private Landowners in the Champlain Valley to Restore Habitat for Golden-Winged Warbler and Other Priority Bird Species (CT, NH, VT)**

Grantee: Audubon Vermont  
 NFWF Award Amount: ..... \$70,000  
 Matching Funds: ..... \$126,010  
**Total Project: ..... \$196,010**

Audubon Vermont will reach out to landowners in the Champlain Valley of southern Vermont and recruit

landowners to implement forest management techniques that enhance the diversity and complexity of forest habitat across the landscape. Project will increase the declining population of golden-winged warblers and other priority bird species. Project will emphasize signage, demonstration areas and public workshops to showcase best management practices and educate a larger audience of forest stakeholders.

This two-year project will target outreach to 150 landowners with golden-winged warbler habitat in the Champlain Valley, improve at least 400 acres of young forest habitat, and initiate easements on a minimum of 100 acres in the target area. Project partners include the Vermont Woodlands Association, the American Forest Foundation and the Vermont Land Trust.

**3) Demonstrating Forest Management Strategies for a Mosaic of Mixed-Age Forests (MA)**

Grantee: Massachusetts Audubon  
 NFWF Award Amount: ..... \$45,000  
 Matching Funds: ..... \$45,000  
**Total Project: ..... \$90,000**

The Massachusetts Audubon Society will create demonstration sites that use long-term forest management planning to maintain a mosaic of forest successional stages at scales meaningful for declining wildlife. Project will create a decision support tool to identify priority areas for a range of conservation practices to increase the extent of forest successional stages, including young and mature forest habitat, that support American woodcock, golden-winged warbler, New England cottontail and other important bird species. Best practices for creating young forest and mature forest habitat conditions will be shared with the statewide and regional forest management community through print and digital media.

Project will result in a functional decision support tool that will accelerate the identification of areas suitable for implementation of best management practices on state and private land and increase the amount of available young and mature forest habitat that supports a suite of species. Partners include the U.S. Forest Service’s Northern Research Station, the Massachusetts Department of Ecological Restoration and the U.S. Department of Agriculture’s Natural Resources Conservation Service.

**4) Improving Pollinator Habitat in Rights-of-Way (MA, NH)**

Grantee: University of Connecticut  
 NFWF Award Amount: ..... \$111,077  
 Matching Funds: ..... \$71,763  
**Total Project: ..... \$182,840**



Golden-winged warbler

The University of Connecticut will assess the best opportunities to create and manage habitat for declining pollinator populations on rights-of-ways in New England. Project will determine best management practices to achieve an optimal diversity of pollinator species by comparing pollinator utilization of young forest habitats and adjacent mature forest habitats along a transmission line right-of-way that runs from New Hampshire, south into Massachusetts and northern Connecticut.

At each site wild bees and butterflies will be sampled from a set of paired plots: one near the center of the powerline corridor and the second in adjacent woodland. In addition to documenting faunal differences between mature forest and early successional forest plots, the project will contrast the bee and butterfly faunas of different plant community types and vegetation management types that occur along this right-of-way.

The results of this study will include additional data to determine how best to manage for pollinators in the young forest and mature forest habitats that occur or can be created along the estimated 20,000 miles of transmission line rights-of-way in New Hampshire.

**5) Achieving Multi-Species Benefits from Young Forest Restoration and Management (ME, NH)**

Grantee: University of New Hampshire  
 NFWF Award Amount: ..... \$197,982  
 Matching Funds: ..... \$198,100  
**Total Project: ..... \$396,082**

The University of New Hampshire (UNH) will identify forest management practices that maximize the habitat benefits to both New England cottontail and a range of high conservation priority bird species that are dependent on young forests. Project will identify habitat restoration site selection and management strategies that benefit the greatest number of bird species, in addition to New England cottontail. The decline in young forests throughout New England has reduced habitat for a wide range of species; however, New England cottontail declines have been the primary driver for young forest restoration, and this project seeks to leverage that investment to achieve habitat benefits for multiple species. Field sampling will be conducted on lands recently cleared, as well as on transmission line rights-of-way in southern Maine and southeastern New Hampshire.

Project will inform decisions about site selection for young forest restoration in relation to existing shrublands, mature forests and wetlands to maintain a mosaic of functioning habitat types, as well as the most effective management strategies including mechanical mowing and selective herbicide treatment. Project will assess 445 acres of habitat supporting New England cottontail to determine best management practices that will benefit the greatest diversity of conservation priority bird species. Project partners include the U.S. Department of Agriculture’s Natural Resources Conservation Service, New Hampshire Fish and Game, the Maine and New Hampshire New England cottontail habitat management teams and UNH Cooperative Extension.



**6) Creating New England Cottontail Habitat on Under-Utilized Lands (ME, NH)**

Grantee: Wells National Estuarine Research Reserve  
NFWF Award Amount: ..... \$60,000  
Matching Funds: ..... \$166,870  
**Total Project: ..... \$226,870**

The Wells National Estuarine Research Reserve will accelerate the restoration of young forests by creating a best practices guide to restore this habitat on under-utilized lands, including transmission line rights-of-way, roadways, industrial parks and municipal lands. Project will provide an expert on-the-ground coordinator to demonstrate a suite of practices and a comprehensive manual provided for landowners.

Project will engage a wide variety of landowners in southern Maine and guide them through the complex process of project initiation, completion and stewardship that is paramount to the continuing recovery of New England cottontail, which is dependant on young forest habitat. In southern Maine, over 90% of the existing New England cottontail population occurs within two miles of lands owned and managed by state and federal agencies. The coordinator will serve as a liaison between state and federal government agencies, encouraging them to improve incentives and management actions to benefit New England cottontail, American woodcock and other young forest dependent species.

Project will restore 300 acres of demonstration habitat supporting New England cottontail and develop a guide that ensures the landowner or manager is matched to the appropriate restoration approach.

**7) Providing Technical Assistance to New Hampshire Landowners to Create Young Forest Habitat**

Grantee: Wildlife Management Institute  
NFWF Award Amount: ..... \$145,000  
Matching Funds: ..... \$200,000  
**Total Project: ..... \$345,000**

The Wildlife Management Institute, as part of ongoing efforts to increase the acreage of young forest habitats utilized by New England cottontail, American woodcock, and other young forest dependent bird species, will provide technical assistance to landowners for habitat improvements in New Hampshire. Landowners and other stakeholders will be educated and recruited through a suite of species-specific websites that highlight the importance of maintaining young forest habitat.

Project will focus on three areas: improving habitat for New England cottontail, improving habitat for American woodcock and providing technical assistance to landowners,

which will provide benefits to early successional species for at least the next 20 years.

Project will improve a total of 152 acres of habitat for New England cottontail and American woodcock through technical assistance from partners for a variety of landowners. Partners include the Southeast Land Trust, Weyerhaeuser and the Timberland Group/LandVest.

**8) Creating Early Successional Habitat in New England for New England Cottontail, American Woodcock and Other Priority Bird Species (CT, MA, ME, VT)**

Grantee: Wildlife Management Institute  
NFWF Award Amount: ..... \$170,000  
Matching Funds: ..... \$170,000  
**Total Project: ..... \$340,000**

The Wildlife Management Institute, as part of ongoing efforts to increase the acreage of young forest habitats utilized by New England cottontail, American woodcock, and other young forest dependent bird species, will provide technical assistance to landowners for habitat improvements in Connecticut, Maine, Massachusetts and Vermont. Landowners and other stakeholders will be educated and recruited through a suite of species-specific websites that highlight the importance of maintaining young forest habitat. Most of the projects occur on land owned by state, federal or municipal partners. These activities will provide benefits to young forest species for at least the next 20 years.

Project will improve a total of 227 acres of habitat for New England cottontail and American woodcock through technical assistance to a variety of landowners. Partners include Connecticut Department of Energy & Environmental Protection, Maine Inland Fisheries and Wildlife, National Wild Turkey Federation, the Green Mountain National Forest and the Town of Carlisle, Massachusetts.

**RESTORING HEALTHY RIVER HABITAT**

The following eight projects seek to restore the quality of riverine habitats that represent the best opportunities to restore river function, water quality, and enhance the long term persistence of native species in aquatic systems in New England including resident native trout (i.e., eastern brook trout) and diadromous fishes (e.g., river herring). Each of the projects advances one of the priorities strategies: replace or remove culverts and other barriers to fish passage, restore riparian or instream habitat and improve water quality, identify opportunities to create multi-species benefits for diadromous fish, provide outreach and technical assistance and, where appropriate, leverage funding through the Farm Bill to renew or enter into new cost-share contracts to restore



Eastern brook trout

and protect riparian buffers and wetlands on agricultural lands. A total of \$1,001,449 in NFWF funds is being awarded, for a total on-the-ground impact of \$4,031,789.

**1) Restoring Fish Passage and Reducing Flooding on the Sheepscot River (ME)**

Grantee: Atlantic Salmon Federation (U.S.)  
 NFWF Award Amount: ..... \$97,000  
 Matching Funds: ..... \$672,000  
**Total Project: ..... \$769,000**

The Atlantic Salmon Federation (ASF) will remove the Coopers Mill Dam on the Sheepscot River in Whitefield. Project will reduce flooding, improve public safety, and provide access to spawning and rearing habitat for eastern brook trout and multiple diadromous fish species including river herring, Atlantic salmon and American eel.

The Sheepscot River has a total drainage area of 320 square miles and includes 24 lakes and ponds. The watershed is comprised of the West and East branches and contains numerous coldwater tributaries. ASF and its local partner, the Midcoast Conservancy, have developed a plan to address community needs while providing for watershed scale restoration of the river’s historic fisheries, which has been identified as a need and priority for the past 75 years by the State of Maine and federal resource agencies.

Project will significantly improve access for multiple species of diadromous fish to 71 miles of historic rearing and spawning habitat and an additional 847 acres of pond habitat for river herring, while also reducing flooding in the Coopers Mill Village.

**2) Restoring and Protecting Gunstock Brook Habitat for Eastern Brook Trout (NH)**

Grantee: Belknap County Conservation District  
 NFWF Award Amount: ..... \$70,033  
 Matching Funds: ..... \$74,562  
**Total Project: ..... \$144,595**

The Belknap County Conservation District will revise the Gunstock Forest Management Plan to integrate wildlife habitat conservation, and will restore a stream bank on Gunstock Brook to reduce sediment and nutrient releases and improve water quality for eastern brook trout.

The revised Forest Management Plan will focus on forest sustainability and improving native wildlife and fish habitat for targeted species, will repair a popular and accessible .25-mile Wetland Walk trail, and will expand interpretation to serve as a demonstration area.

The stream bank restoration will prevent 47 tons of sediment and 41 tons of phosphorus at a priority restoration site from entering Gunstock Brook and the Poorfarm Brook watersheds, which flow into Lake Winnipisaukee.

**3) Accelerating the Pace and Impact of Stream Connectivity Restoration for Eastern Brook Trout and Atlantic Salmon (ME)**

Grantee: BioDiversity Research Institute  
 NFWF Award Amount: ..... \$75,000  
 Matching Funds: ..... \$886,809  
**Total Project: ..... \$961,809**

The BioDiversity Research Institute will restore aquatic connectivity at high-priority stream crossing sites for



eastern brook trout and Atlantic salmon through targeted technical assistance and outreach to improve site selection and design, and to increase public support for connectivity and riparian habitat protection.

Project will include comprehensive barrier surveys, planning based on habitat values, infrastructure needs, development pressure models, and highly targeted technical assistance to ensure proper design and implementation. Project team has built an effective and efficient model for stream connectivity projects on municipal and private lands that is directly transferable to other geographies in New England and elsewhere in the region.

Project will implement 32 connectivity design projects that will open 44 miles of high-quality brook trout and Atlantic salmon habitat and 225 acres of river herring habitat. Project partners include the U.S. Fish and Wildlife Service, The Nature Conservancy, Elliotsville Plantation, Inc., Weyerhaeuser, Sebasticook Regional Land Trust and eight organized townships in Maine.

**4) Removing Seven Barriers to Restore Access to Eastern Brook Trout Spawning Habitat (NH, VT)**

Grantee: Connecticut River Watershed Council  
 NFWF Award Amount: ..... \$199,165  
 Matching Funds: ..... \$229,075  
**Total Project: ..... \$428,240**

The Connecticut River Watershed Council (CRWC) will increase needed aquatic connectivity on the Upper Connecticut River through the removal of seven barriers to fish passage that will open access to historic spawning habitat for eastern brook trout.

Using ecological rankings from the U.S. Fish and Wildlife Service, regional connectivity reports and assessments for the Upper Connecticut River as well as from New Hampshire and Vermont state agencies, CRWC has identified seven barriers that are blocking fish migration, sediment transport and natural flow regimes in these cold water streams. Permission has been secured from barrier owners to remove these old structures and work is ongoing with our federal, state and local partners to finalize engineering design plans and permitting needed to proceed with removal. Five of the seven projects already have engineering design plans completed or in progress and all seven barriers will be removed during the project.

Project will open access to 140 miles of historic cold water spawning habitat and thermal refugia for Eastern brook trout and improve sediment transport.

**5) Increasing Municipal Capacity for Culvert Replacement to Improve Aquatic Connectivity for Eastern Brook Trout in the Deerfield River Watershed (MA)**

Grantee: Massachusetts Department of Fish and Game, Division of Ecological Restoration  
 NFWF Award Amount: ..... \$179,620  
 Matching Funds: ..... \$200,000  
**Total Project: ..... \$379,620**

The Massachusetts Department of Fish and Game, Division of Ecological Restoration will build local capacity to replace unsafe, undersized culverts with ones that will improve aquatic connectivity for Eastern brook trout and reduce flood hazards.

The Deerfield River watershed in western Massachusetts, due to the high volume of culverts in the watershed, cannot achieve landscape level improvements in stream connectivity with the typical restoration project model that addresses each stream barrier separately. A new model that builds capacity to replace culverts based on both ecological and public safety criteria will increase the pace of replacement.

Project will develop and deliver a culvert engineering and design, permitting, and construction toolkit with trainings to help build culverts that meet Massachusetts Stream Crossing Standards. Project will also provide one-on-one support to design four to six culvert replacement projects. Partners include the Franklin County Conservation District, the North Atlantic Aquatic Connectivity Collaborative, and the Massachusetts Department of Transportation.

**6) Replacing a Culvert on the Shepards River to Reconnect Habitat for Eastern Brook Trout (ME, NH)**

Grantee: Town of Brownfield, Maine  
 NFWF Award Amount: ..... \$100,000  
 Matching Funds: ..... \$212,000  
**Total Project: ..... \$312,000**

The Town of Brownfield will replace a deteriorating, undersized culvert on the Shepards River in Brownfield, Maine with a fish-friendly, open-bottom structure that will restore fish passage for eastern brook trout and access to historic spawning habitat.

The Shepards River is home to native brook trout and is one of southern Maine's premier small-water wild brook trout fisheries. The river had an historic Atlantic salmon run that will be possible again when downstream barriers are removed. The majority of the reconnected upstream watershed is located in New Hampshire.

Project will restore eight miles of known brook trout habitat upstream that will be reconnected to 27.6 miles of habitat downstream. The new culvert will also ensure that the road is no longer at risk of closure during flooding events. Partners include the Eastern Brook Trout Joint Venture, the Maine Department of Inland Fisheries and Wildlife, the Maine Department of Marine Resources and the U.S. Fish and Wildlife Service’s Gulf of Maine Coastal Program.

**7) Restoring Instream and Riparian Habitat for Diadromous Species on the Lower Coonamessett River (MA)**

Grantee: Town of Falmouth, Massachusetts  
 NFWF Award Amount: ..... \$200,000  
 Matching Funds: ..... \$206,894  
**Total Project: ..... \$406,894**

The Town of Falmouth will remove two barriers to fish passage and restore instream and riparian habitat on the Coonamessett River and Coonamessett Pond to benefit eastern brook trout and multiple diadromous fish species including river herring and American eel.

The Coonamessett is a statewide priority for restoration for eastern brook trout and river herring because it is one of the largest rivers on Cape Cod, has groundwater-fed hydrology, and contains the 158-acre kettle-hole Coonamessett Pond in its headwaters, which is used by spawning river herring. Current monitoring of brook trout and river herring movement will help determine how rapidly conditions improve after restoration activities are implemented.

Project will remove two barriers to fish passage, restore 1,600 feet of instream habitat and 17 acres of riparian habitat, and monitor the river herring population to determine the extent to which the restoration activities increase the number of river herring. Partners include the National Oceanic and Atmospheric Administration’s Restoration Center, the Massachusetts Division of Ecological Restoration and the Coonamessett River Trust.

**8) Restoring Pond Habitats for Wild Brook Trout in the Nulhegan River, Paul Stream and Dennis Pond Watersheds (VT)**

Grantee: Trout Unlimited  
 NFWF Award Amount: ..... \$80,631  
 Matching Funds: ..... \$549,000  
**Total Project: ..... \$629,631**

Trout Unlimited will assess and then identify specific opportunities to improve aquatic connectivity in the Upper Connecticut River of Vermont for eastern brook trout that are unique in spending part of their lives in ponds. Once

identified, fish passage barriers will be removed to restore access to historic spawning habitat and instream habitat will be restored through woody additions.

There are only eight ponds in the entire state of Vermont that are known to support self-sustaining populations of brook trout that are robust enough to provide quality angling opportunities. Four ponds within the Nulhegan, Dennis Pond, and Paul Stream watersheds support at least some level of naturally reproducing brook trout. Two other ponds have at least some potential for supporting self-sustaining brook trout populations: Notch Pond (Dennis) and South America Pond (Paul Stream).

Project will replace four barriers to fish passage, restore access to 12 miles of spawning habitat for eastern brook trout, and restore four miles of in-stream habitat through additions of woody material to create habitat complexity. Partners include Vermont Fish and Game, Weyerhaeuser and LIADSA, LLC.



American woodcock