



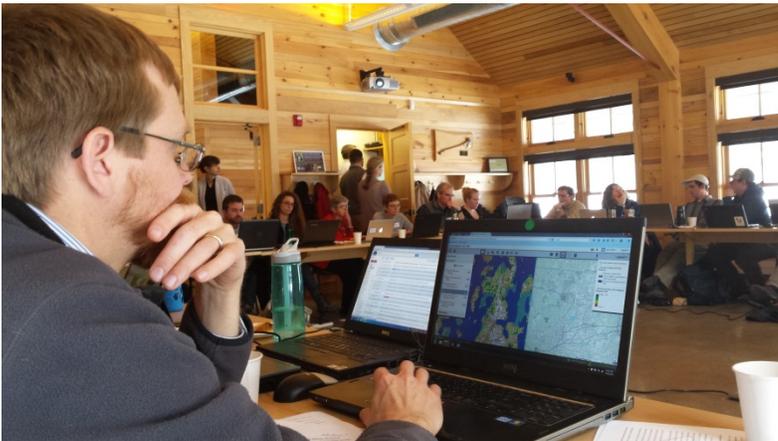
## **Catalyst Grants Northeast Resilient Landscapes Program**

OSI's Catalyst Grant Program is part of its Resilient Landscapes Initiative. It advances the practical application of climate science to land conservation and includes conservation dollars for the permanent protection of exemplary, climate-resilient lands from Maine to Alabama. The Catalyst program provides technical assistance and small grants (\$5,000 to \$35,000) for innovative planning and research projects. The goal is to help build the knowledge base land trusts and public agencies need to safeguard the most biologically diverse places for the long term.

From 2013 to 2015, OSI has made 12 Catalyst grants to 10 organizations in six states.

### **Completed Projects**

#### **Highstead and the North Quabbin Regional Landscape Partnership North Quabbin Region, Massachusetts, \$10,000**



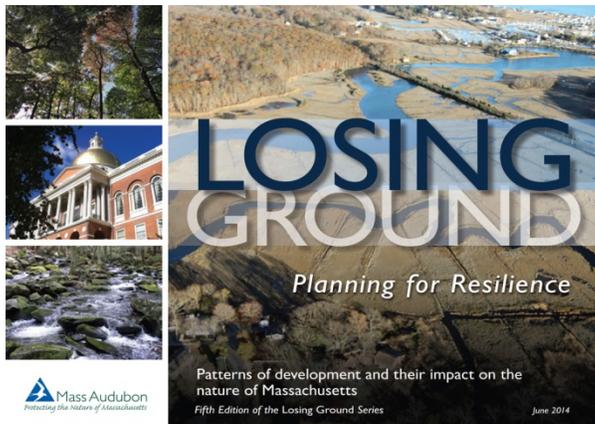
This grant enabled Highstead to pilot a three-part workshop designed to bridge the gap between the traditional land protection work of regional conservation partnerships (RCPs) and cutting-edge climate science. The workshop series helped 16 diverse members of North Quabbin to reach consensus about conservation priorities in their service area (which includes extensive forested areas surrounding the reservoir that provides Boston's drinking water) and then trained them to use The Nature Conservancy's (TNC) climate resilience data to

evaluate local priorities. The partners used this information to create a digital map that spotlights climate-resilient areas that will continue to support plants and animals and will drive their future conservation targets.

**Outcomes:** North Quabbin discovered three new focus areas that were highly resilient, and are now considering innovative multi-landowner initiatives to protect them. They also led a ground-truthing hike of a resilient area for other partners and created user-friendly informational brochures and events tailored to town boards, landowners, and the public.

Highstead expanded its capacity to assist RCPs across New England in climate planning. The organization later applied for and received a second Catalyst grant to hold additional workshops with two to three other RCPs (see page 5).

## Massachusetts Audubon Society, Inc. (Mass Audubon) – Massachusetts, \$10,000



This grant supported Mass Audubon's study of the status of climate-resilient lands statewide. Collaborating with colleagues at TNC of Massachusetts, Mass Audubon analyzed land characteristics and development patterns of climate-resilient lands. The research found that 1.4 million of the Commonwealth's 5 million acres are resilient to climate impacts, yet less than half of these lands are protected.

**Outcomes:** The results were incorporated into the fifth edition of Mass Audubon's *Losing Ground: Planning for Resilience* report (2014), which quantifies recent land development and protection trends in Massachusetts to help conservationists, town planners, and agencies to improve planning and advocacy.

Mass Audubon then applied for and received a second Catalyst grant to adapt the data for use by land trusts statewide and by state agencies (see page 5).

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## New Jersey Conservation Foundation (NJCF) – New Jersey, \$10,000

NJCF staff, working with Ecological Solutions, Inc., a natural-resources consulting firm, performed field sampling to understand the relationship between climate resilience of forested sites and land-use history. In particular, they examined links between soil alteration resulting from past agricultural use at these sites and the presence of invasive plants. Based on the results, the Foundation advocates that practitioners consider field conditions based on an area's land-use history so they can more accurately identify the most resilient parcels unlikely to harbor invasives.

**Outcomes:** The project produced new information about forest soils and plant species on resilient sites. This information will assist NJCF and other land trusts and state agencies in differentiating among climate-resilient examples of low-elevation fertile sites, such as the Limestone Valley in New Jersey, where agriculture was once predominant.

## Bear-Paw Regional Greenways – Southeast New Hampshire, \$7,500



Bear-Paw's grant allowed them to incorporate climate-resilience data into the local Natural Resource Inventory maps that inform their strategic conservation plan. Their original plan, completed over 10 years ago, identifies the location and condition of the region's most important ecological, biological, and water resources, including wildlife habitat, wetlands, and agricultural lands. The revised maps allowed Bear-Paw to better understand the climate-resilient characteristics of existing focus areas in light of landscape complexity and local connectedness. This information validated and focused their past land-acquisition priorities and served as a pilot for broader application of climate considerations throughout New Hampshire.

**Outcomes:** Bear-Paw distributed a set of maps to member towns for use in developing open space plans.

## Ongoing Projects

### **Appalachian Mountain Club (AMC) – Maine, New Hampshire and Vermont, \$20,890**



AMC will incorporate climate-resilience science into its ongoing conservation-priority assessments in two high-value landscapes. It will perform a climate resilience analysis of high-elevation areas (above 2,700 feet) in Maine, New Hampshire and Vermont—critical habitat for wildlife species of concern. It will also analyze northern New Hampshire’s Androscoggin Headwaters and the nearby Western Maine Mountains, a region stretching from the White Mountains to Moosehead Lake and the northern Boundary

Mountains. The work will identify under-protected sites and potential corridors to conserve so plants and animals can shift ranges as the climate changes.

**Expected Outcomes:** AMC will provide information including a report and mapping data to land trusts, state agencies and other potential partners on emerging conservation opportunities. It will also target wind-farm developers considering site relocation and mitigation opportunities.

### **State of Maine and Mount Agamenticus to the Sea (MtA2C) Conservation Initiative Maine, \$19,000**

The MtA2C partners are collaborating with the Maine Department of Inland Fisheries and Wildlife, the state Natural Areas Program, and TNC of Maine to assess the relative resilience and vulnerability of focal areas in the State Wildlife Action Plan (SWAP). They will use TNC resilience data to perform a more detailed re-drawing of the plan’s focus area within the coastal MtA2C region—the most biologically diverse in Maine, harboring large numbers of at-risk species. The project will develop a model that integrates resilience data, species priorities, information on anticipated sea-level rise and species vulnerability assessments.

**Expected Outcomes:** The final, revised SWAP will influence who is awarded funds from Land for Maine’s Future, Maine’s primary conservation grant program. The conservation partners and the state’s SWAP outreach program will use the project results to inform conservation planning and communications with area towns and land trusts.



## New York State Conservation Partnership Program

In addition to making conventional grants, OSI has partnered with three New York-based conservation organizations on projects funded under an LTA Partnership Grant, designed to support New York's land trusts in understanding and applying climate science.

### **Wildlife Conservation Society (WCS) – Adirondacks, New York**

WCS is using climate-resilience data to identify under-protected resilient habitats within Adirondack Mountains landscapes, which include the world's largest intact temperate forest. Though the 6-million-acre Adirondacks are the largest protected area in the continental United States, WCS's analysis showed that while high-elevation granite sites are largely conserved, low-elevation geologies within the Adirondack Park are significantly under-protected. This situation places wildlife in these settings at risk, including wide-ranging mammals like moose as well as sensitive bird species like the scarlet tanager.

**Expected Outcomes:** Their work will serve as a blueprint for setting land-conservation priorities for land trusts in the region. It is designed to answer the often-asked question, "How much is enough?" conservation in the Park. The final results will be used for outreach and to inform local land-use planning in sites with critical under-protected habitat types.

### **Black Rock Forest Consortium – Hudson Highlands, New York**

Black Rock is working to ground-truth climate-resilient sites within Legacy Ridge, a wildlife corridor linking Black Rock Forest in the Hudson Highlands with Schunemunk Mountain (a unique, 1,700-foot double-crested peak). The area is critical for connecting central and northern Appalachian sites to facilitate movement by many species of threatened and endangered wildlife in a rapidly developing area as the climate changes.

**Expected Outcomes:** The project will produce a field-based guide that translates OSI's GIS data and Black Rock's local knowledge of target species occurrence and movements to help land trusts identify resilient features on this landscape.

### **Columbia Land Conservancy (CLC) – Columbia County, New York**

CLC is developing a new conservation plan that integrates climate-resilience science with the results of fieldwork by conservation biologists from Hudsonia Ltd., a research and education nonprofit. They will characterize the habitats in CLC's Hudson Valley service area. OSI will train CLC's staff in using map-based data to apply a climate resilience lens to refine their conservation priorities for working lands, biodiversity and recreation.

**Expected Outcomes:** CLC is developing an updated strategic plan that will incorporate climate change considerations. They will also develop a user's guide summarizing lessons and recommendations from their experience.

### **Highstead – Massachusetts, Vermont and Maine, \$34,000**

This grant builds on Highstead's 2013 project with the North Quabbin Regional Conservation Partnership (page 1). It will allow Highstead to use lessons from its work with North Quabbin to assist two relatively new RCPs—the Massachusetts-Vermont Woodland Partnership and the Downeast Research and Education Network—in integrating climate resilience science and data into their first conservation plans.

**Expected Outcomes:** The project will produce two new conservation plans for protecting climate-resilient sites within the RCPs' service areas. Highstead will then develop a guidance document to walk other RCPs through the technical and practical issues related to integrating climate into conservation plans.

### **Massachusetts Audubon Society, Inc. – Massachusetts, \$16,000**

OSI provided an additional grant to Mass Audubon (page 2) to integrate its statewide terrestrial resilience data with the biodiversity-centered BioMap2 and other relevant datasets to develop a parcel-based conservation planning tool. The tool will be an interactive web map through which users can identify an area of interest and use various filters to identify appropriate land-protection opportunities. Mass Audubon will also work with state agency staff to integrate the data into the Energy and Environmental Affairs Landscape Partnership Grants program, which provides funding to protect large blocks of land.

**Expected Outcomes:** The planning tool now under development will be made available to the state's 150 land trusts in 2016.

### **Vermont Land Trust – Vermont, \$7,000**

Vermont Land Trust (VLT) will assist the Vermont Fish and Wildlife Department in updating the State Wildlife Action Plan (SWAP) using TNC and regional datasets, identifying a set of conservation targets that will contribute to the protection of biological diversity in a changing climate. They will then pinpoint a set of "responsibility landscapes," important and/or rare geophysical settings (such as low-elevation limestone) that are not well protected across the Northeast but are abundant in Vermont. These places will be assessed for intactness.

**Expected Outcomes:** VLT will prepare a guide to state and regional climate data sets, including the responsibility landscapes. The guide will enable VLT, state agencies, and conservation planners to use the data to inform land protection and planning.

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