

Open Space Institute

Resilient Landscapes Initiative

Highlands and Kittatinny Ridge – NJ and PA

Facts

Total Acres: 798,118

Total Conserved Acres: 252,330

Resilient Acres: 536,184

Important Geology Types:
Limestone and silt

Noteworthy species: Bog turtle,
northern goshawk, cerulean warbler,
dwarf wedgemussel

Key Rivers: Delaware River,
Paulinskill River, Wallkill River,
Bushkill Creek



Northern goshawk; Photo: Norbert Kenntner

Contact

**Highlands and Kittatinny
Ridge – NJ and PA**

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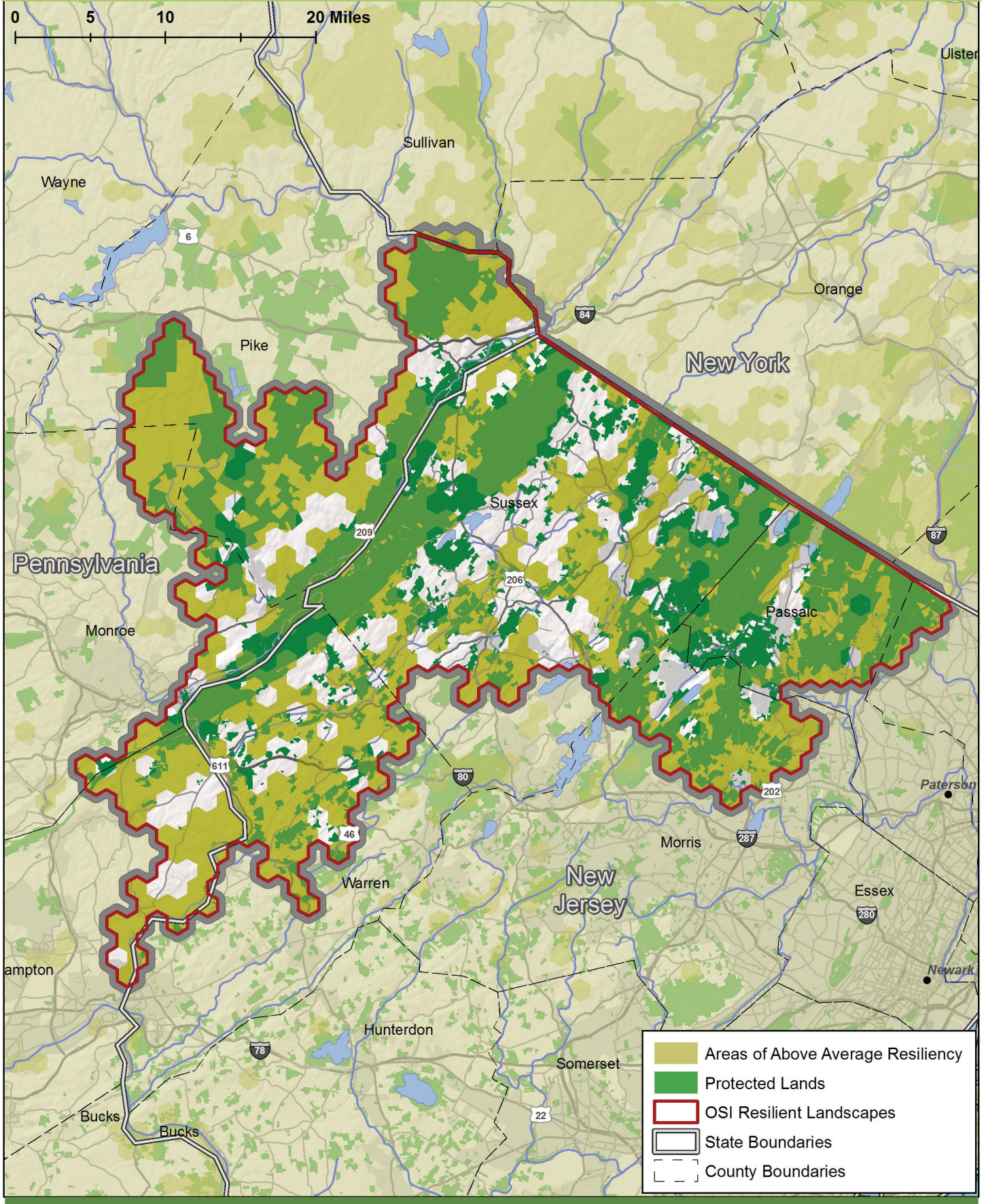
Atop the Kittatinny Ridge overlooking Cherry Valley; Photo: George C. Gress, The Nature Conservancy

The Highlands and Kittatinny Ridge region is one of four landscapes across the Northeast and Mid-Atlantic that are strongly positioned to facilitate wildlife adaptation to climate change, according to the Open Space Institute's analysis based on data from The Nature Conservancy's *Resilient Sites for Terrestrial Conservation*. Resilient landscapes are natural strongholds that are potentially resistant to drought, flooding, rising temperatures and other threats associated with climate change, providing habitat for a variety of plants and animals and benefits, such as clean water, for humans.

Decision-makers can use this resiliency science to identify places to conserve today that will likely support a diversity of plants and animals tomorrow as the climate changes. The four landscapes, chosen from among a dozen that OSI evaluated using this new data, contain unprotected climate resilient habitat, strong nonprofit capacity and potential matching funds for conservation. All four areas are eligible for land protection grants and technical assistance through OSI's \$6 million Resilient Landscapes Initiative.

What is a Resilient Landscape?

Based on more than a decade of research, TNC has found that sustaining species diversity across the landscape depends on the geology types below ground and the complexity of associated landforms above ground. The more complex the site, the more species will be able to take advantage of the micro-climates available among the slopes, cliffs, valleys, ravines, caves and lowlands of a complex landscape. Local connectivity — or absence of roads, buildings and other infrastructure — is also important since species need to be able to access the complex features. Together landform complexity and local connectivity indicate the most resilient examples of each geology type. At its heart, this science is based on the idea that while we cannot predict exactly how species and habitats will respond to climate change, we can identify places that provide the greatest climatic options for the greatest number of species.





Highlands forests, NJ;
Photo: Brett Cole

Why the Highlands and Kittatinny Ridge?

Located in the shadow of New York City, the focus area is one of the most ecologically intact, heavily forested, topographically varied and least developed landscapes in the Mid-Atlantic region. This 800,000-acre landscape is highly diverse, spanning several geologic features that include the eastern Pocono plateau, the Kittatinny Ridge, the Great Limestone Valley and the NJ Highlands. The region's large intact forests play a critical role in recharging aquifers and streams supplying a significant portion of water to the Delaware River. The U.S. Fish and Wildlife Service and state wildlife agencies have recognized the area for its unusually biodiverse plant and animal communities. The NJ Highlands portion of the area alone contains over 137 endangered, imperiled or rare plant species – and over 70 state-listed animal species and 4 federally-listed species: Indiana bat, bog turtle, dwarf wedgemussel and bald eagle. The Delaware River corridor and associated mountain ridges are regionally important migration routes for songbirds, raptors and waterfowl, and mammals such as bobcat, black bear and river otter. The focus area includes wetlands and ecologically intact cold water streams that support native eastern brook trout and several species of state and federally-listed freshwater mussels. Specialized wetland habitats such as calcareous fens, vernal ponds and limestone seepage areas support rare plants and animal species like blue-spotted and long-tailed salamanders and rare dragonflies and damselflies.



Lake, Lower Cherry Valley Road

About two thirds of the region is above average for resilience, of which two thirds are conserved. About half of the focus area includes complex landscapes, which contain a diversity of microclimates and diversity of landforms that facilitate wildlife adaptation. Elevation ranges from 300 feet to 2,133 feet. The region contains several iconic conserved landscapes, including the 70,000-acre Delaware Water Gap National Recreation Area that includes Appalachian Trail following the top of the Kittatinny Ridge. The focus area provides critical ecosystem services such as clean drinking water, and recreational opportunities to this highly populated region near cities of New York and Philadelphia. The New Jersey Highlands produces 379 million gallons of drinking water daily. Outdoor recreation such as hiking, camping, hunting and fishing plays an important role in the region. Numerous national, regional and local nonprofit land trusts work in this region, which is a funding priority many state and federal agencies.

Resilient Landscapes Initiative

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OSI Resilient Landscapes Initiative Capital Grants

Through the Resilient Landscapes Initiative, OSI will provide \$5.5 million in capital grants within four targeted areas. OSI will award matching grants to projects that permanently protect resilient habitat through the acquisition of land or easements. OSI will solicit grant proposals through a competitive Request for Proposals (RFP) and, with help of an Advisory Committee, review applications against ecological and transactional criteria. OSI announced the initial RFP in June 2013 and additional rounds will be announced approximately every six to nine months through September 2015. Please go to OSI's website for more information: www.osiny.org/ResilientLandscape.

Outreach and Education

OSI will further enhance the capacity of land trusts and public agencies to respond to climate change through focused outreach and education efforts. We will provide data on resilience and make grants to land trusts and provide technical assistance to public agencies in focus areas to integrate resiliency science into conservation plans. Grants will be made by invitation.

The Open Space Institute protects scenic, natural and historic landscapes to provide public enjoyment, conserve habitat and sustain communities. Founded in 1974 to protect significant landscapes in New York State, OSI has been a partner in the protection of nearly 2.2 million acres in North America.

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