



Photos courtesy of Lakes Region Conservation Trust

Corridors and Climate: Planning for Regional Species Flow

Lakes Region Climate-Inclusive Conservation Plan Looks Beyond Borders

Conservation organizations in the Lakes Region of New Hampshire have been collaborating since 2010 to develop and implement a regional strategic conservation plan. Eight partners, the Lakes Region Conservation Trust, the Society for the Protection of New Hampshire Forests, The Nature Conservancy, the Squam Lakes Conservation Society, the Newfound Lake Region Association, the Green Mountain Conservation Group, the Lakes Region Planning Commission and the New Hampshire Fish and Game Department, regularly work together to address regional conservation opportunities and threats.

In 2017, with support from the Land Trust Alliance's Land and Climate Program and assistance from the Open Space Institute, the Lakes Region Conservation Trust reconvened most of these partners in order to incorporate new climate resilience data from The Nature Conservancy into the regional conservation plan. This cutting-edge research identified a connected network of climate-resilient sites with the characteristics needed to ensure plant and animal species can persist as the climate changes. By incorporating this and other data, including habitat and species movements identified in New Hampshire's Wildlife Action Plan, these organizations are now able to better identify and protect resilient sites in the Lakes Region that will support plant and animal adaptation as the climate changes in New Hampshire.

CLIMATE DATA CREATES EMPHASIS ON REGIONAL CONNECTIONS AND COLLABORATIONS

Connecting land to facilitate species movement has been a conservation focus in the Lakes Region for decades. The climate data from The Nature Conservancy added a new lens to existing maps by emphasizing connected lands that feature climate-resilient habitats—lands that will continue to be important for wildlife movement as the temperature changes, precipitation becomes more severe, and habitats shift in the Lakes Region. This data highlighted areas that would support **flow**—the movement of plants and animals in response to climate change.

Several **climate corridors**—zones of flow in which species can move through undeveloped land in the changing climate—became evident as the Lakes Region conservation organizations looked at the new data. “The addition of the climate data re-emphasized the importance of corridors,” said Don Berry, president of the Lakes Region Conservation Trust (LRCT). “This new body of information fit logically into things we were already thinking about and provided us additional compelling evidence to prioritize the conservation of land in these areas.” New data emphasized opportunities to preserve critical contiguous lands in order to support species flow.

Climate data added a sense of urgency to the protection of these climate corridors. The organizations had been partnering on a regional plan since 2010, working with technical experts to create **co-occurrence maps** that show places in the Lakes Region where multiple conservation values overlap. The addition of climate data, and specifically climate corridors, emphasized the value of new forms of collaboration. The maps revealed resilient landscapes and zones of species movements that crossed the borders of each organization's service area. By thinking about climate corridors, regional connectivity was brought to the forefront of the collaboration.

KEY TERMS

Flow: The movement of plants and animals in response to climate change.

Climate corridors:

Networks of connected, undeveloped lands which allow plant and animal species to move through the landscape as climate change affects habitat ranges. Corridors are areas of concentrated flow.

Co-occurrence map:

A landscape-scale conservation tool that shows where a variety of natural resource factors are co-located, thus implying potentially higher conservation importance.

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DEVELOPING SHARED TECHNICAL RESOURCES FOR REGIONAL IMPACT

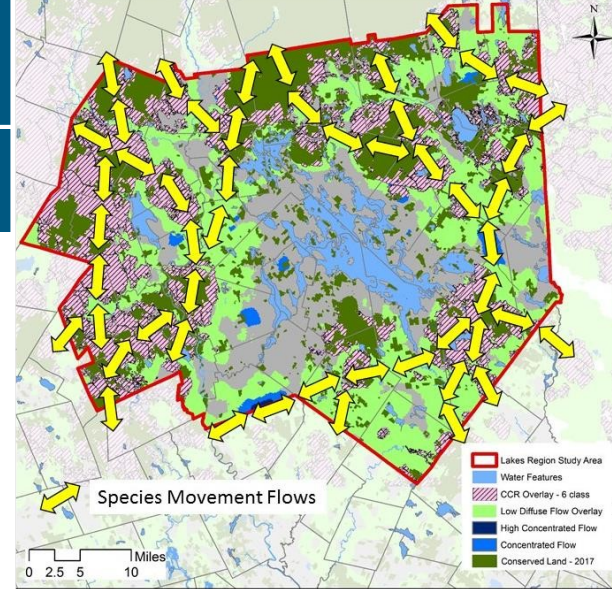
“We didn’t have the in-house technical capacity to proceed with this planning alone,” explained Berry. “Lakes Region Conservation Trust and our partners relied on the external technical expertise of Dan Sundquist, who had led the work in creating the original co-occurrence maps and who we were able to hire with a grant from the Land Trust Alliance. Significant contributions were also made by technical experts at The Nature Conservancy, the New Hampshire Fish and Game Department and the Society for the Protection of New Hampshire Forests.”

The process of developing shared technical resources began in 2010 and continued through the 2017 addition of new climate data. Staff and volunteers from each organization attended meetings during which technical experts, including Sundquist, reported on the process of updating maps with climate data. The co-occurrence maps were based on consideration of a long list of conservation values that land might exhibit—large forest blocks, wellhead protection zones, riparian buffers, agricultural value and more—and each participant ranked these values. Through this unique consensus-building process, called the Delphi method, each organization had 100 votes to cast on its conservation priorities. The co-occurrence maps demonstrated these priorities by showing the lands that contained the most highly-voted-for conservation values. This process created a tool for viewing regional priorities without replacing any one organization’s priorities. “Having external experts worked extremely well,” continued Berry. “They coordinated the partners and helped with prioritization.”

NEW DATA REVEALS KEY PARCELS

At Lakes Region Conservation Trust, the new regional plan helped prioritize parcels. “The co-occurrence maps show connections between parcels and provide powerful tools for identifying priorities, working with landowners and explaining the reasons for conserving their lands,” stated Berry. “It doesn’t mean these are the only factors we consider. We’re also looking at recreational value, local interest, scenic value and more. But we always use co-occurrence maps as we evaluate projects.” With these tools, land trusts like LRCT are able to look at properties in their service areas from a regional perspective. Lands that are important for wildlife movement in a changing climate can be better prioritized.

“This new perspective on climate and connectivity has reinforced our attention to connectivity of conserved lands and has significantly elevated the importance of considering climate data as we evaluate land projects,” said Berry. “It also enhances our organizational capacity. The co-occurrence maps of resilient and connected lands enable our staff and lands committee members to work more proactively in pursuing projects with connectivity and climate resilience value.” For example, LRCT is working with a number of landowners in a key river valley between Red Hill and the Ossipee Mountains-to-White Mountains Corridor in the center of the Lakes Region. “We are fortunate,” explained Berry, “in having the opportunity to work with a number of conservation-minded landowners. They are interested in not only protecting their land, but also supporting the conservation of their neighbors’ parcels. The resilience and connectivity data resonates a great deal with these landowners and gives us and them a new, stronger inspiration to work together.”



By analyzing resilience data and species flows at a regional scale, land trusts can work with neighboring organizations to guide localized conservation targets toward regional connectivity.

LEARN MORE

Visit the Land Trust Alliance’s Conservation in a Changing Climate website for resources on climate corridors: <https://climatechange.lta.org>.

LESSONS LEARNED

“The climate maps gave us more science to back up what had been a priority already: linkages between conserved lands for wildlife movement.”

“This process has elevated the importance of considering the climate data as we evaluate land projects. There’s more potential for us to increase proactive conservation projects.”

