

Lush, green forests. Cool, clean water. Stunning vistas. Plentiful wildlife and rare fauna. Western North Carolina is the ultimate natural playground, but our swaths of natural landscapes serve an even bigger global purpose.

Over the past 25 years, Foothills Conservancy of North Carolina has protected more than 60,000 acres of land across western North Carolina, and the preservation of this biodiverse landscape goes beyond creating a place to escape into nature: It can also help limit the effects of climate change.

Carbon dioxide is necessary to sustain life on Earth, creating an insulating layer around the planet that traps heat and energy from the sun. But it's a delicate balance. For the last few decades, an increase in atmospheric carbon has begun warming the planet over a very short period, and the effects are being felt in the form of devastating extreme weather. These new, frequently recurring weather events, such as flooding and drought, negatively affect humans and wildlife alike through displaced communities, loss of habitat, food insecurity and more.

Land trusts like Foothills Conservancy play a significant role in mitigating the effects of climate change by creating climate solutions — actionable efforts that offset the negative impacts of climate change, like protecting land in floodplains that shield neighboring properties from floodwaters or buffer sea level rise. Native plants and animals, especially in the Blue Ridge Mountains, are adapting to climate change as they move along protected corridors to escape to higher, cooler ground. Ensuring that these corridors exist as “green highways” for both plant and animal species is yet another feasible climate solution.

Trees also play a critical role in climate change mitigation by capturing and storing large amounts of carbon that would otherwise leak into the atmosphere. Forest enhancement activities, such as the planting of 3,500 native shortleaf pines trees at our Oak Hill Community Park and Forest this spring, is a localized example of how Foothills Conservancy's forestry best management practices contribute to climate solutions. By early 2021, reforestation efforts led by the conservancy's stewardship director, Ryan Sparks, will result in 60,000 shortleaf pine seedlings on the Oak Hill Park Community Park and Forest property and on conservancy lands in the South Mountains.

Protecting natural strongholds, or places where the effects of climate change are buffered by the natural properties of a site, is yet another viable climate change solution put forth by the conservancy. These natural strongholds, often referred to as “resilient landscapes,” may include varied topography and complex geology, connected natural cover, high quality biodiversity, or a combination of these and other features. Even as the climate changes, resilient landscapes like these retain high quality habitats and support diverse arrays of plant and animal species. In 2016, The Nature Conservancy announced its Resilient and Connected Landscapes project, a first-of-its-kind study that brought 60 scientists together to focus on identifying such areas for potential protection. Over an eight-year period, these scientists studied and comprehensively mapped resilient land corridors across North America.

Foothills Conservancy's eight-county service area is full of resilient sites, particularly in the South Mountains, Blue Ridge Mountains and Brushy Mountains. This new data not only assists the conservancy in evaluating land, but also affirms that many of the conservancy's past and present focus areas are refuges for biodiversity as the climate changes.

As leaders in the conservation industry, land trusts are uniquely positioned to prioritize and act on the permanent protection of resilient sites to provide habitat for native species. By securing these places, land trusts are also safeguarding natural resources like fresh drinking water, clean air and even recreation benefits for communities both now and into the future. Foothills Conservancy is committed to continuing our strategic conservation work to protect aquatic and terrestrial wildlife habitat, working farms, healthy forests, creeks, rivers, streams and resilient landscapes for the benefit of our enjoyment and our climate.