

THE MOUNTAIN'S SONG

A Vision for the
BRIDGESTONE NATURE RESERVE
at Chestnut Mountain



A Strategic Plan by
The Nature Conservancy in Tennessee

ABOUT THIS PLAN

This Strategic Plan serves as a guiding vision for the Bridgestone Nature Reserve at Chestnut Mountain—an invitation to steward a landscape where ecology, culture and community converge. It outlines a path toward restoring resilient forests, honoring the stories held in the land, advancing science and learning, and deepening connections between people and place. Rooted in the enduring strength of the Cumberland Plateau yet forward-looking in spirit, it charts a thoughtful, ambitious course for ensuring that the Mountain’s Song resonates through the years ahead.



**The mission of The Nature Conservancy
is to conserve the lands and waters
on which all life depends.**

This plan provides our vision and strategies for the Bridgestone Nature Reserve at Chestnut Mountain: to protect and restore the land, strengthen community connections and guide thoughtful stewardship so this landscape continues to thrive.



THE WHY

The Mountain's Song

Long before roads and boundaries, the Cumberland Plateau rose as a vast wilderness of towering oaks and pines, grasslands, caves and echoing hollows. Waterfalls sang through rugged gulfs, and life moved with the rhythm of the seasons. It was a land shaped by falling water and the slow, patient work of time itself.

Today

The Cumberland Plateau faces mounting pressure from invasive species, habitat fragmentation and climate change, which is driving longer droughts and prolonged warm, wet periods. Forests once shaped by natural forces such as wind, water and fire now contend with decades of fire exclusion and increasingly severe weather impacts, threatening the intricate webs of life that have endured here for millennia.

A Resilient Future

The Cumberland Plateau contains some of the Southeast's most intact forests and headwater systems, helping protect communities from climate impacts while supporting wildlife and cultural heritage. As part of the Appalachian Mountains, it contributes to one of the world's most biologically diverse temperate forest regions.

Recognized by The Nature Conservancy as a Global Priority Geography, the Appalachians are vital for biodiversity, climate resilience and human well-being. Protecting the Cumberland Plateau helps ensure these benefits endure for future generations.

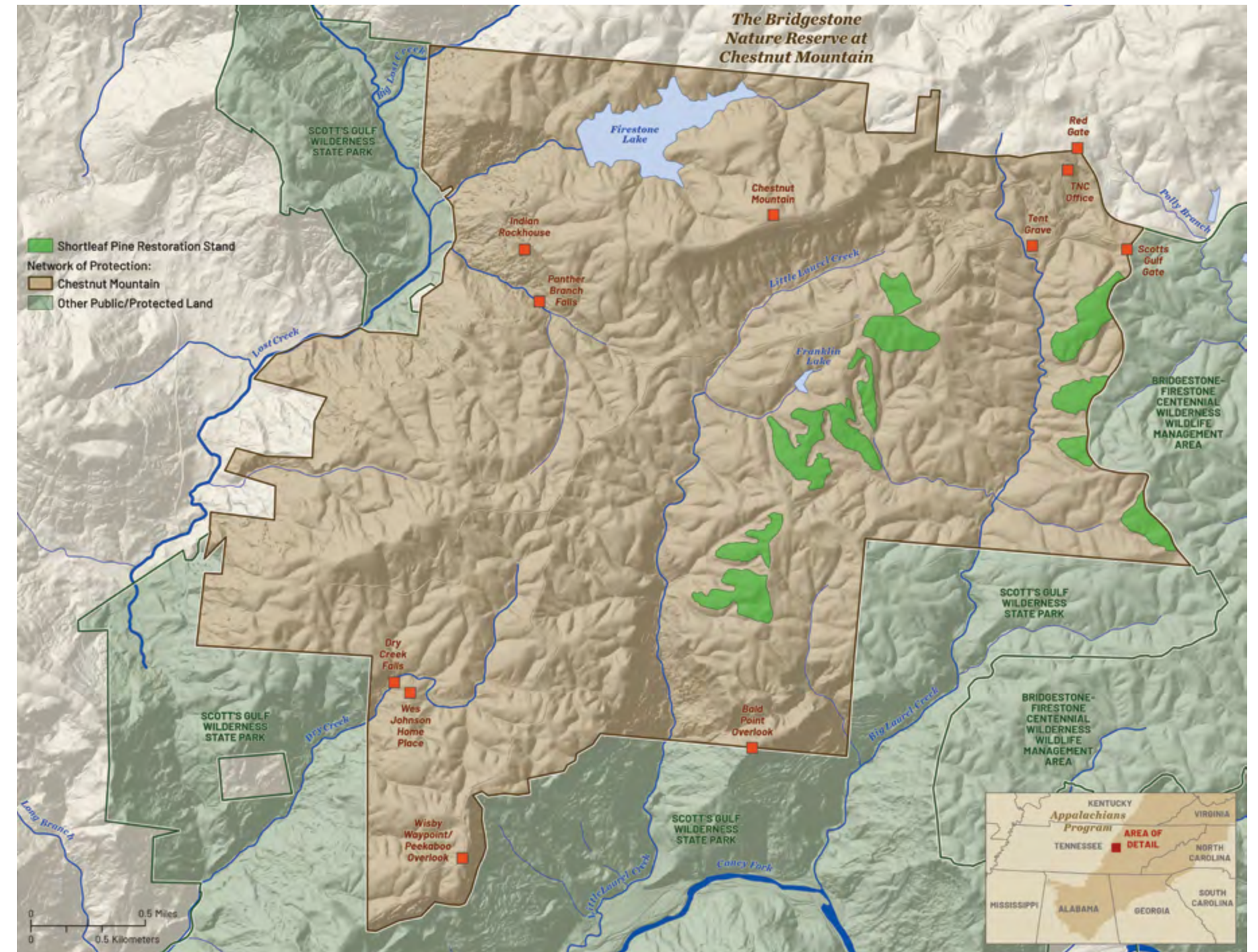
INTRODUCTION

The Mountain’s Song begins on the Cumberland Plateau, rising more than a thousand feet above the Tennessee River Valley as one of North America’s most ancient and ecologically significant landscapes. Sculpted over millions of years by water, pressure and time, it unfolds as a rugged expanse of sandstone cliffs, forested ridges, deep gorges and hidden hollows. Waterfalls plunge into narrow gulfs, caves wind through limestone bedrock and spring wildflowers erupt across forest floors in dazzling displays. It is a landscape shaped by geologic power and softened by extraordinary beauty.

Within this tapestry lies the Bridgestone Nature Reserve at Chestnut Mountain, 5,763 acres of conserved land anchoring a broader network of more than 60,000 protected acres of forests, streams and wildlife corridors. Gifted to The Nature Conservancy by Bridgestone Americas in 2018, the Reserve contains some of the Plateau’s richest habitats, including the headwaters of the Caney Fork River, mixed hardwood and pine forests, rare plant communities, high-elevation vistas and remote backcountry that supports more than 100 species of conservation concern. From golden eagles riding winter thermals to elusive green salamanders tucked among sandstone cliffs, the Reserve is a refuge for species found few other places.

Across its ridges and valleys, the Reserve serves another vital role as a climate-resilient stronghold. Recognized by The Nature Conservancy as one of Tennessee’s most climate-resilient landscapes, the Cumberland Plateau can store millions of tons of carbon while providing the corridors wildlife need to adapt to changing conditions. In an era of rapid change, Chestnut Mountain remains a place where natural systems can persist, recover and thrive.

Yet the importance of this land extends beyond ecology. The Reserve carries the stories of Indigenous communities, early settlers, hunters, farmers and families whose traditions remain deeply rooted in the Plateau. Protecting these cultural legacies is part of protecting Chestnut Mountain itself, honoring the human voices woven into the mountain’s enduring song.



OUR VISION



Looking ahead, the vision for the reserve is bold and rooted in stewardship:

1. **A restored and resilient landscape**, where shortleaf pine and oak woodlands return, native species flourish and science guides adaptive management in the face of a changing climate.
2. **A place that honors cultural heritage**, safeguarding archaeological and historical resources and elevating the wisdom and perspectives of local communities and Indigenous partners.
3. **A living laboratory for applied science**, where students, researchers and collaborators generate new knowledge that advances conservation across the Southeast.
4. **A hub for community engagement and environmental learning**, inspiring people of all ages, backgrounds and abilities to explore nature, participate in conservation and build meaningful connections to the land.
5. **A model of excellence in stewardship**, where infrastructure, safety, fire management and operational planning support long-term conservation success.

Together, these strategies form a unified vision: Chestnut Mountain will be a resilient landscape—rich in biodiversity, rooted in cultural history, powered by science and strengthened by community. It will stand as a place of extraordinary ecological value and a beacon of hope, innovation and collaboration into the Mountain's future.

STRATEGY 1

Restoring and Strengthening the Mountain's Natural Resilience

The Nature Conservancy's stewardship of the reserve aims to protect and revitalize natural ecosystems and biodiversity, ensuring their resilience in the face of climate change. This will be achieved through science-based strategies, proven management practices and a flexible, adaptive approach that embraces learning, navigates uncertainty and respects diverse perspectives and priorities.



GOAL: Enhance forest ecosystem resilience by restoring oak-pine woodlands and native grasslands while supporting priority species.

Restore thriving oak-pine woodlands and grasslands by rebuilding native plant and wildlife communities through active stewardship.

- Use prescribed fire to maintain open woodlands and promote oak, shortleaf pine and native grass regeneration.
- Remove invasive species that threaten native habitats.
- Thin overcrowded forests to improve structure and support native plants and wildlife.
- Reintroduce priority species, including native grasses, wildflowers and grassland-dependent wildlife.
- Monitor restoration outcomes and adapt management strategies over time.



GOAL: Protect and enhance aquatic and wetland ecosystems to maintain water quality, hydrologic function and biodiversity.

Safeguard the health of streams, wetlands and riparian corridors through targeted protection, restoration and long-term monitoring

- Protect Eastern hemlock forests and manage threats such as hemlock woolly adelgid where feasible.
- Monitor stream health using indicator species, including crayfish and salamanders.
- Establish water-quality baselines and track changes over time.
- Restore streamside habitats at Billy Branch and Franklin Lakes.
- Map and assess wetlands and vernal pools to guide long-term stewardship.



GOAL: Protect and restore cave and karst ecosystems to support species persistence and groundwater resilience.

Conserve cave and karst systems by advancing understanding of subterranean habitats and the species and groundwater resources they support.

- Advance understanding of cave and karst systems, groundwater resources and the species they support.
- Monitor endangered bats and other cave-dependent species through biological surveys.
- Incorporate cave and karst conservation into land management planning.
- Partner with regional caving organizations to support stewardship and responsible access.

How We Will Deliver This Work

We will advance restoration through phased ecological work that begins with priority forests, grasslands and streams. Early actions include prescribed fire, targeted restoration and invasive species control, followed by expanded efforts guided by monitoring and field data. We will also study and protect the reserve's cave and karst systems with regional experts. Donor support will accelerate restoration, strengthen monitoring and build long-term resilience.



STRATEGY 2

Honoring and Protecting the Mountain’s Cultural Legacy

The Nature Conservancy will safeguard and honor the cultural heritage of the reserve by actively protecting archaeological and historical sites, collaborating with local communities and Indigenous partners and applying the best available science and management practices. These efforts will preserve the rich legacy of human connection to this land for future generations.

 **GOAL:** Preserve and steward prehistoric and historical cultural resources within the reserve to ensure their long-term protection and integrity.

Build a Comprehensive Understanding of Cultural Resources by creating a detailed record of the Reserve’s archaeological and historical heritage to inform long-term stewardship.

- Develop a comprehensive cultural resource inventory to establish a baseline of archaeological and historical sites and their surrounding landscapes.
- Map cultural landscapes to identify patterns of past land use and guide protection and management decisions.

Secure Long-Term Protection for Cultural Sites by implementing lasting safeguards that maintain the integrity and significance of the Reserve’s cultural heritage.

- Establish management buffers, monitoring protocols and site-specific conservation plans to protect cultural resources.
- Apply best-available science and cultural resource management practices to safeguard artifacts, features and cultural landscapes from degradation or disturbance.

Strengthen Partnerships with Indigenous and Local Communities by building enduring relationships that ensure cultural stewardship reflects diverse voices and shared values.

- Engage with Indigenous partners, including the Eastern Band of Cherokee Indians, to support culturally appropriate research, monitoring and interpretation.
- Collaborate with local communities and cultural stakeholders to honor traditional knowledge, support shared stewardship and elevate underrepresented histories.



How We Will Deliver This Work

We will document archaeological and historical sites, map cultural landscapes and establish conservation measures that protect them over time. As this foundation grows, we will develop site-specific plans and design responsible public access that safeguards sensitive areas. Partnerships with the Eastern Band of Cherokee Indians and local communities will guide each phase. Donor support will strengthen the relationships and expertise needed to protect this cultural legacy.



STRATEGY 3

Research That Powers Restoration

The Nature Conservancy will champion and facilitate hands-on, field-based research that deepens understanding of native species and ecosystems. Through robust research partnerships and interdisciplinary collaboration, we will generate the science needed to guide effective restoration and long-term resource protection.



GOAL: Advance applied research in restoration and conservation to generate innovative, science-driven solutions that strengthen ecosystem resilience and inform long-term management.

Establish a collaborative research hub by building the capacity, partnerships and infrastructure needed to position Chestnut Mountain as a leader in applied conservation science.

- Establish a coordinator role to lead research, outreach and environmental education.
- Develop data and mapping systems to support collaborative research.
- Host research convenings to share findings and strengthen partnerships.
- Secure funding for long-term research and monitoring.
- Expand partnerships with volunteers, universities, agencies and conservation organizations.

Demonstrate scalable land-management solutions by managing the reserve as a living laboratory for conservation practices that can be adopted by private landowners and regional partners across the Cumberland Plateau.

- Implement demonstration projects that showcase the ecological and economic benefits of responsible land management.
- Host workshops and field events to share knowledge and build conservation capacity.



How We Will Deliver This Work

We will build Chestnut Mountain into a collaborative research hub by expanding partnerships, improving data systems and coordinating field research efforts. As these systems mature, we will broaden participation and support long-term research initiatives. The reserve will serve as a living laboratory where restoration techniques are tested and shared. Donor support will expand research capacity and accelerate innovative conservation solutions.



STRATEGY 4

Cultivating Community and Conservation Stewards

Chestnut Mountain will serve as an inclusive, accessible hub for environmental education, scientific participation and collaborative stewardship. By strengthening community partnerships, engaging diverse audiences and fostering transparent communication with local leadership, we will build broad public support for conservation and inspire the next generation of environmental leaders.



GOAL: Develop community-centered partnerships and engagement programs that strengthen long-term conservation outcomes, expand collaborative capacity and deepen regional support for Chestnut Mountain.

Expand environmental education, youth engagement and community stewardship by establishing Chestnut Mountain as a living classroom where people of all ages participate in hands-on conservation, outdoor learning and ecosystem monitoring.

- Partner with local governments, agencies and community organizations to advance shared conservation goals.
- Host field experiences that connect students to conservation through outdoor learning.
- Expand access to conservation education for underserved and underrepresented youth.
- Partner with educators to support curriculum-linked conservation programming.
- Engage community scientists in monitoring water quality, biodiversity and ecological change.





How We Will Deliver This Work

We will strengthen community partnerships and expand engagement through shared learning opportunities and collaborative stewardship. Chestnut Mountain will serve as a living classroom where students, educators and families participate in hands-on environmental learning. Community science programs will empower residents to contribute directly to conservation. Donor support will broaden participation and build lasting regional stewardship.



STRATEGY 5

Stewarding a Living Landscape

Maintain and enhance the physical and ecological infrastructure required for effective conservation, research, fire management and operational efficiency. Stewardship efforts will safeguard natural resources, ensure staff safety and sustain the long-term functionality of Chestnut Mountain as a working conservation landscape.



GOAL: Ensure that Chestnut Mountain’s facilities, equipment, grounds and road systems are maintained and improved to the highest standards of safety, functionality and ecological integrity.

Maintain safe, efficient facilities and operational systems that support conservation, research and stewardship across the reserve.

- Implement a facility maintenance plan to support safe and efficient operations.
- Upgrade facilities and workspaces to meet current and future program needs.
- Maintain field equipment and safety gear to support conservation operations.
- Maintain reliable utilities and operational support systems.
- Implement sustainable operations practices to reduce the reserve’s environmental footprint.

Maintain grounds, trails and road systems for safe access and ecological health while supporting forest management, research and responsible public use.

- Maintain roads, trails and drainage systems to support safe access and protect natural resources.
- Manage corridor vegetation and restore degraded areas to support ecological health and connectivity.
- Monitor infrastructure conditions following storms, prescribed burns and seasonal changes to guide maintenance priorities.
- Install and maintain clear signage to support safe navigation for staff, partners and visitors.



Protect and manage the reserve's ecological assets by sustaining biodiversity, addressing threats and improving ecosystem function across diverse habitats.

- Maintain Franklin Lake and associated infrastructure to support water quality and aquatic habitat health.
- Manage invasive species through early detection, rapid response and long-term control.
- Reduce wild hog impacts to protect sensitive habitats and ecosystems.
- Maintain and improve fire breaks to support prescribed fire and landscape resilience.



How We Will Deliver This Work

We will maintain Chestnut Mountain's facilities, infrastructure and systems to support safe, effective conservation work. Early efforts include implementing a maintenance plan, upgrading essential structures and ensuring reliable equipment and utilities. We will also care for roads, trails and ecological assets through ongoing monitoring and targeted stewardship. Donor support will sustain the operational foundation that makes conservation possible.

CHESTNUT MOUNTAIN 2030 GOALS

TNC aims to combat climate change, conserve critical lands and oceans, protect freshwater systems, and support vulnerable communities by 2030.



Climate and Carbon Goals:
Sequester up to 270,000 tonnes of carbon by 2030 through forest conservation and management that enhance long-term carbon storage, equivalent to removing nearly 60,000 cars from the road.



Land and Freshwater Protection:
Protect 5,763 acres of forestland within one of North America's most biologically diverse forest ecosystems, safeguarding habitat for native plants and wildlife. Conservation efforts will also protect 40 miles of streams and more than 100 acres of lakes and wetlands, supporting water quality, aquatic biodiversity and downstream resilience.



Land with Improved Management:
Restore 1,000 acres of oak and shortleaf pine woodlands and savannas by 2030 through prescribed fire and strategic forest management. These efforts will increase native plant diversity, improve wildlife habitat and strengthen the ecological health of the landscape.



Community and Human Well-being:
Protect the forests, streams and wetlands surrounding Firestone Lake, helping safeguard a vital drinking water source for nearly 5,000 residents in the BonDeCroft community. Conserving these natural systems helps ensure clean, reliable water for local families for generations to come.

CHESTNUT MOUNTAIN BY THE NUMBERS

A snapshot of the reserve's scale, impact and the foundation upon which our vision is built.



5,763
acres of forested
property



3,734
acres of dry oak forest
and woodlands



250
acres of shortleaf
pine savannas



80
acres of Eastern
hemlock forests



40
miles of streams
and waterfalls



100
species of greatest
conservation need



100
acres of lakes and
wetlands



AN INVITATION TO SHAPE WHAT COMES NEXT

Every day at Chestnut Mountain reminds us that we are standing in a place of rare beauty and extraordinary possibility. The forests, streams and soaring ridges of the Cumberland Plateau continue to reveal new lessons about resilience, restoration and what is possible when people choose to care for the land together.

The work happening here is already shaping the future of conservation in the Southern Appalachians, but this is only the beginning. Whether through scientific collaboration, restoration efforts, cultural stewardship or community engagement, there are countless ways to strengthen this living laboratory and amplify its impact far beyond the mountain's boundaries.

Thanks to the vision and generosity of our partners and donors, we have made extraordinary progress. But important work remains, and continued investment will help ensure this landscape is protected, restored and stewarded for generations to come.

We invite you to join us in this shared journey – to learn with us, to lead with us, and to help ensure that the Mountain's Song continues to echo as its story unfolds.





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