

SECURING NORTH CAROLINA'S FUTURE

A Five-Year Plan for Investing in Our Land,
Water and Quality of Life | May 2012



LAND for TOMORROW

North Carolina's forests, farms, wetlands and other natural lands contribute to our health, economic prosperity and quality of life. Rapid residential and commercial development over the last several decades has resulted in the loss of millions of acres of these important lands. Recognizing the challenge, individual citizens, organizations and public officials across North Carolina have sprung into action – investing money, time and effort to protect places that matter across the state.



Big Yellow Mountain CREDIT: DAVID RAY/TNC

State government efforts, particularly the work of the state's four conservation trust funds, serve as the foundation for North Carolina's land conservation strategy. The trust funds provide an important source of funding for land acquisition and conservation projects, often leveraging one to two times as much funding from private, non-profit or other sources. They also fund critical planning efforts to help North Carolina invest its conservation funds wisely and to help communities determine how to meet their own conservation needs.

The report, *Securing North Carolina's Future* (available at www.landfortomorrow.org), tracks the state's progress toward the conservation goals set in 2005 by Land for Tomorrow and proposes a new set of goals for the years to come. It tells three stories about the state's conservation efforts:

- The story of the **tremendous progress** North Carolina has made toward preserving places that matter across the state;
- The story of the **recent decline in funding** for land conservation – a decline that puts the state's future economic vitality and quality of life at risk; and
- The story of what could be – a vision of a healthy, prosperous and vibrant North Carolina that protects what's best about our natural lands and working landscapes – **a vision that can become a reality if we commit the necessary resources.**

Today, North Carolina is at an important crossroads. To secure North Carolina's economy, quality of life and treasured environment, the state must reinvigorate its commitment to land conservation.

Land conservation is a critical tool to enhance North Carolina's economic prosperity, health and quality of life.

- **Economy** – North Carolina's working farms and forests are a cornerstone of the state economy. Agriculture is a \$32 billion industry in North Carolina that employs 120,000 people, while forestry contributes another \$6 billion to the state's economy. Visitors to North Carolina's state parks sustain more than 4,900 full-time equivalent jobs and generate \$290 million in sales each year. Finally, conservation projects themselves create short-term jobs – a 2009 study found that 40 jobs are created for every \$1 million invested in reforestation, land and watershed restoration, and sustainable forest management.

- Clean air and water** – Land conservation reduces pollution of our waterways, cleans our air, and safeguards lands that protect against flooding. The services provided by undeveloped land in North Carolina are valuable – a study by the Trust for Public Land estimated that land already protected through the state’s four conservation trust funds will deliver \$3.67 billion in economic benefits through 2020 – a return of four dollars in benefits for every dollar invested.
- Quality of life** – The state’s investments in parks and recreation, open space, and the protection of local food sources help maintain a high quality of life that attracts people to North Carolina. More North Carolinians are enjoying outdoor recreation than ever before – 14.25 million people visited North Carolina state parks in 2011, tying an all-time record.

North Carolina has made tremendous progress in preserving places that matter.

- Since 2005, approximately 389,400 acres of land across North Carolina have been protected from development through a variety of public and private actions.
- North Carolina has also made significant progress in identifying and prioritizing the most important natural and working landscapes and watersheds for protection. From the completion of local natural heritage inventories and farmland protection plans in many North Carolina counties to the development of the state’s Conservation Planning Tool, citizens and government agencies now have better resources than ever before for evaluating and coordinating conservation efforts.

However, due to recent reductions in state funding, key conservation needs remain unmet.

- North Carolina has met only one of the goals for conservation recommended in Land for Tomorrow’s 2005 report, *Saving the Goodliest Land* – the goal for preservation of working forests. In all other areas, North Carolina either fell short of achieving the goals, or its achievement of the goals could not be documented. (See Table 1, back page.)
- The pace of land conservation in North Carolina has slowed dramatically in recent years, largely due to cutbacks in funding of the state’s four conservation trust funds, as well as other land acquisition efforts. Between 2005 and 2008, an average of 75,160 acres of land was

FIGURE 1. Land Conservation in North Carolina by Year

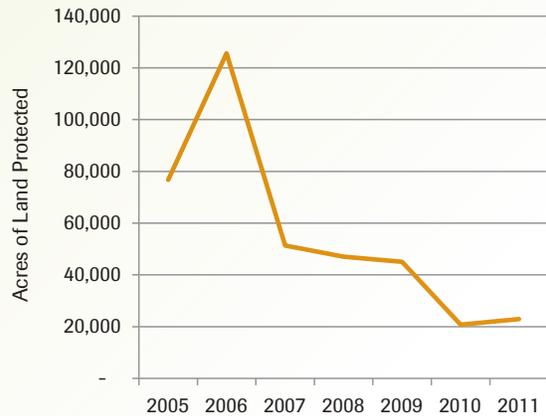


FIGURE 2. Conservation Trust Fund Grants, 2007 & 2011

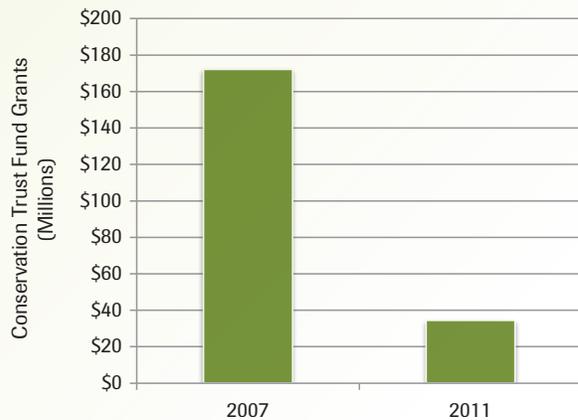
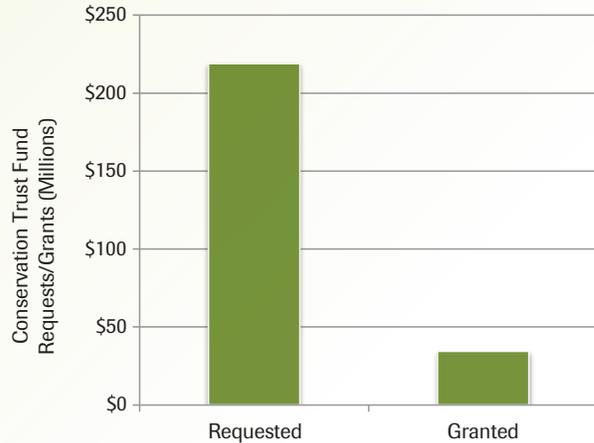


FIGURE 3. Gap between Funding Requests and Grants Issued by North Carolina Conservation Trust Funds (2011)



protected in North Carolina per year. Between 2009 and 2011, an average of only 29,582 acres of land per year was protected. (See Figure 1.)

- Between 2007 and 2011, the amount of money granted by the state's conservation trust funds for all purposes declined by 80 percent, from \$172.1 million to \$34.5 million. (See Figure 2.)
- In 2007, the state's four conservation trust funds were able to fund nearly half of the requests they received. By 2011 they were able to fund less than one-sixth of funding requests, even as reduced land prices provided a unique opportunity to secure conservation land at low cost. (See Figure 3.)

North Carolina must reinvigorate its commitment to protecting places that matter. Land for Tomorrow recommends that the state work to achieve the following five-year conservation goals.

- **Rivers, wetlands and other critical source waters** – North Carolina should seek to ensure permanent protection for natural buffers that protect water quality in rivers and streams, while also protecting existing wetlands, headwaters of ecologically important rivers and streams, and lands in water supply areas. Over the next five years, North Carolina should seek to protect buffers along an additional five percent (1,750 miles) of the state's rivers and streams, while protecting 200,000 acres of wetlands and watershed lands.
- **Working farms** – North Carolina should protect existing farmland and return idled farmland to production, helping to satisfy the growing demand for healthy, locally-grown food and maintain the strength of the state's agricultural economy. Over the next five years, the state should protect 50,000 additional acres of agricultural land through long-term easements and land donations, while continuing to encourage farmers to participate in Enhanced Voluntary Agricultural Districts and other programs to keep working farms active.
- **Working forests** – North Carolina should protect existing forested land within the state's designated Forest Legacy Areas, those forest areas in the state that have been identified as most ecologically valuable and threatened by development. The state should act to protect 25,000 additional acres of forested land in Forest Legacy Areas through the use of conservation easements and other tools.
- **Local parks, trails and greenways** – North Carolina should expand its local parks, trails and greenways to continue to provide recreational opportunities for our growing population, acquiring and developing 14,000 acres of local parks over the next five years. The state of North Carolina should support local governments in achieving this goal through grants from the Parks and Recreation Trust Fund and assistance to local governments in implementing their parks and recreation plans.
- **State parks and trails** – North Carolina should expand state parks to provide outdoor recreation opportunities for our growing population and enrich the state park experience by protecting new types of land that are underrepresented in the system. North Carolina should plan on adding 40,000 acres of state park land in the next five years, while making progress toward completion of the Mountains-to-Sea Trail and other key state trails.
- **Game lands and other natural areas** – North Carolina should protect lands that serve important natural functions and are home to our most special plant and animal species while providing new places for North Carolinians to fish, hunt and enjoy the outdoors. North Carolina should add 50,000 acres of new state game lands and other natural areas in the next five years.
- **Land visible from scenic highways** – North Carolina should continue to preserve scenic land and properties with other conservation value that are visible from the Blue Ridge Parkway and North Carolina Scenic Byways. Over the next five years, the state should seek to protect an additional 20,000 acres of land along the Blue Ridge Parkway and Scenic Byways.

These goals could be achieved with the investment of approximately \$812 million by the state over the next five years, which will leverage millions of additional dollars from federal, local and private sources.

By reinvesting in land conservation and taking other steps to protect the state's most vulnerable and valuable natural lands and working landscapes, North Carolina can help ensure a prosperous future and high quality of life for all North Carolinians.

TABLE 1. Evaluation of 2005 Five-Year Goals and 2012-2017 Conservation Goals

Type of Land	Previous Five-Year Goal	Achieved, 2005-11	Five-Year Goal, 2012-17	Investment Proposed (in millions)
Rivers, Wetlands and Other Critical Source Waters	6,000 miles of stream banks and floodplains	1,733 stream-miles of buffers protected through the Clean Water Management Trust Fund	1,750 stream-miles of buffers/greenways, amid 200,000 acres of protected wetlands and watershed land	\$269.3
Working Farms	50,000 acres of productive farmland	36,800 acres of farmland protected	50,000 acres of productive farmland	\$51.4
Working Forests	25,000 acres within Forest Legacy Areas	114,000 acres protected within Forest Legacy Areas	25,000 additional acres within Forest Legacy Areas	\$50.0
Local Parks and Trails	34,000 acres and needed trail and park facilities	4,115 acres protected through the Parks and Recreation Trust Fund	14,000 acres	\$120.9
State Parks and Trails	60,000 acres and needed trail and park facilities	33,300 acres of new state parks	40,000 acres, plus completion of 700 miles of the 1,000-mile Mountains-to-Sea Trail	\$177.0
Game Lands and Other Natural Areas	150,000 acres	118,900 acres of Game Lands and lands in the Natural Heritage Program and Plant Conservation Program	50,000 acres	\$93.6
Land Visible from Scenic Highways	50,000 acres along the Blue Ridge Parkway and other scenic highways.	13,584 acres of land near the Blue Ridge Parkway	20,000 acres along the Blue Ridge Parkway and state Scenic Byways	\$50.0
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Land for Tomorrow is a coalition of conservation, agriculture, wildlife and hunting/fishing groups, business organizations, local governments, and other concerned citizens. Its goal is to mobilize the conservation community to protect funding for the state's four conservation trust funds – the Clean Water Management Trust Fund (CWMTF), the Natural Heritage Trust Fund (NHTF), the Parks and Recreation Trust Fund (PARTF) and the Agricultural Development and Farmland Preservation Trust Fund (ADFPTF). Funding for these trusts is controlled by the North Carolina General Assembly.

To obtain a copy of *Securing North Carolina's Future*, or for more information about Land for Tomorrow, please visit www.landfortomorrow.org.



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LAND *for* **TOMORROW**

May 2012

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Layout: 8 Dot Graphics

Cover Photo: Big Yellow Mountain CREDIT: DAVID RAY/TNC

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EXECUTIVE SUMMARY

North Carolina's forests, farms, wetlands and other natural lands contribute to our health, economic prosperity and quality of life. Rapid residential and commercial development over the last several decades has resulted in the loss of millions of acres of these important lands. Recognizing the challenge, individual citizens, organizations and public officials across North Carolina have sprung into action – investing money, time and effort to protect places that matter across the state.

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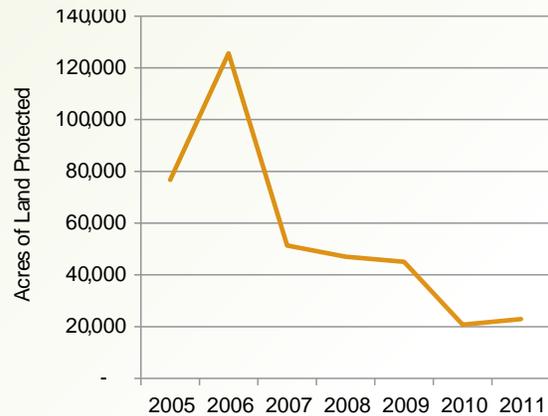


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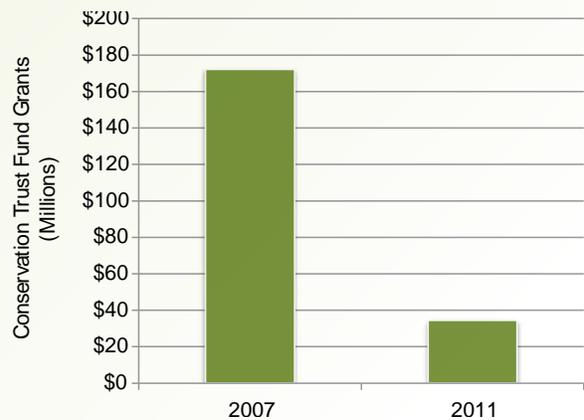


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THE CASE FOR LAND CONSERVATION IN NORTH CAROLINA

North Carolinians have a deep love for and connection to our land – from the beaches of the Outer Banks to the mountains of western North Carolina. For many of us, special lands have an emotional, even spiritual value that transcends consideration of dollars and cents.

Land conservation also brings many practical benefits to North Carolina. Our state’s natural wonders support a vibrant tourism industry that attracts visitors from around the world, while our working forests and farms are the foundation of local economies across North Carolina. The investments we make in land conservation improve our quality of life, which itself has economic value, particularly in an increasingly mobile world in which people have more choice than ever before about where they will live and invest their money and skills. Investments in land conservation also help protect the quality of our air, water and ecosystems, sustaining a healthy North Carolina for ourselves and future generations.

Conservation Grows the Economy and Generates Jobs

Land conservation benefits North Carolina’s economy in many ways – stimulating tourism and outdoor recreation, supporting the agriculture and forestry industries, providing billions of dollars worth of critical (if often unseen) services to our communities, and creating new jobs to help spark economic recovery.

Tourism: In 2011, a record-tying 14.25 million people visited North Carolina’s state parks.¹ Visitors to these and other natural areas in North Carolina support a network of local businesses – from convenience stores to bait shops to concession stands to campgrounds – injecting economic vitality into communities across the state. A 2008 study by North Carolina State University researchers estimated that state parks create a \$400 million annual impact on the economy. That study was completed before the state parks system recorded three years of record visitation, with more than 14 million visitors each year in 2009, 2010 and 2011.²

State parks are among the many places where North Carolinians and visitors to our state can enjoy outdoor recreation. In 2006, 3.4 million people participated in fish or wildlife-related recreation in North Carolina.³

Residents alone spent \$2.05 billion and nonresidents contributed an additional \$570 million.⁴

Working landscapes: North Carolina’s rich agricultural lands and abundant forests are important natural and economic resources for the state. Agriculture is a \$32 billion industry in North Carolina that employs 120,000 people.⁵ Forestry contributes another \$6 billion per year to the state’s economy and employs nearly 75,000 people.⁶ Working farms and forests are the foundation of the economy in many parts of North Carolina. Protecting working landscapes from encroachment by development ensures that those resources can continue to support jobs and economic activity for decades to come.

Natural services: North Carolina’s natural lands provide billions of dollars worth of “ecological services” – all for free. Forested lands remove pollutants from our air, protecting North Carolinians’ health. Wetlands soak up flooding rains, absorb pollutants, and help sustain economically important fisheries and other wildlife communities. By protecting natural lands, North Carolina avoids billions of dollars in expenses for water treatment plants, stormwater facilities, damage from floods, and pollution-related health care costs.



Birdwatching is one of many activities that draw tourists to natural areas throughout North Carolina. **Location:** Brunswick County.

CREDIT: DEBBIE CRANE/THE NATURE CONSERVANCY.

Putting a dollar number on the value of these services is difficult, but a 2011 study by the Trust for Public Land found that every \$1 spent through the state's four conservation trust funds between 1998 and 2010 yielded \$4 in economic value from natural resource goods and services alone.⁷ The total value of ecological services from those lands was estimated at \$3.67 billion through 2020.⁸

Conservation Success Story:

JACKSON FARM

Tom Jackson left his family's Sampson County farm in 1961 to attend college – not unlike many young North Carolinians in recent decades.

In 1980, however, he felt the desire to come home. Now, he is serving as a herald of a renewed commitment to farming driven by the sustainable food movement and aided by the state's agricultural land conservation programs.

When Tom first returned to Jackson Farm, his parents were growing corn, wheat and tobacco. However, after tasting a neighbor's homegrown asparagus in the late 1980s, he was inspired to transform Jackson Farm into a producer of sustainably grown vegetables, edible flowers and herbs for North Carolina chefs. More recently, Jackson has lovingly restored a dilapidated building on the property into a guest house serving home-cooked meals in order to share the gifts of locally grown food and natural beauty with visitors.

In 2009, Jackson decided to protect the farm and a South River tributary from future subdivision and development threats, selling the development rights of the farm to the NC Coastal Land Trust, with support from the NC Attorney General's Environmental Enhancement Grant program and the NC Agricultural Development and Farmland Preservation Trust Fund. As a result of these efforts, "the land can never be developed into a subdivision nor used for industrial purposes."³⁴

Jackson explained, "We know that people will always need places to get away from cities and enjoy nature, so we've created not just a birding trail, but also a guest house where visitors can remember the rich, simple pleasures of rural North Carolina 50 years ago. We also believe that home-grown vegetables and other produce just taste better than food brought in from far away by air or rail. We're proud to help some of North Carolina's best restaurants provide local food to their diners."³⁵



Land conservation projects often require the labor of both paid staff and volunteers. A recent study found that nearly 40 jobs are created for every \$1 million invested in reforestation and land and water restoration.

Location: Boiling Spring Lakes Preserve.

CREDIT: SARA BABIN, THE NATURE CONSERVANCY.

Direct job creation: Land conservation is often thought of as a passive activity, yet many of the projects supported by conservation programs – from the restoration of stream banks and wetlands to the construction of new parks and recreation facilities – are direct job creators in the community. A recent study by economists at the University of Massachusetts estimated that nearly 40 jobs are created for every \$1 million invested in reforestation and land and watershed restoration.⁹ Approximately 20 jobs are created for every million dollars invested in parks.¹⁰



CREDIT: TOM JACKSON

Conservation Provides Clean Water and Air

Clean water and clean air are necessities of a healthy life. Yet, North Carolina falls far short of providing these resources for all its citizens.

Clean water: North Carolinians need clean water to meet the basic everyday needs of residents and businesses, and to provide places to fish, swim, boat and enjoy the outdoors. Clean, healthy waterways are an economic asset: clean water reduces the expense of water treatment and can even draw to the state industries that rely on clean water. In 2012, for example, craft brewers Sierra Nevada and New Belgium Brewery selected western North Carolina as the site of their new East Coast breweries, in part because of the area's high water quality.¹¹ Sierra Nevada is expected to employ 95 people and invest nearly \$108 million in the area.¹² New Belgium Brewing is expected to employ 154 people and invest at least \$115 million over the next five years.¹³

Not all North Carolina waterways are clean. Nearly 4,000 miles of North Carolina's rivers and streams and almost 40 percent of our lakes fail to meet basic standards for fishing, swimming or habitat for healthy populations of wildlife.¹⁴ Waterways that are currently clean face potential threats from polluted runoff that often accompanies large-scale development.

Land conservation programs help preserve water quality in our pristine waterways and restore polluted waterways to health. In 2008, for example, the Blue Ridge Rural Land Trust acquired the 1,765-acre Pond Mountain in Ashe County, protecting 18 miles of tributaries leading to Big Laurel and Big Horse Creeks, which run into the New River.¹⁵ Likewise, the Foothills Conservancy of North Carolina's protection of the 649-acre Wilson Creek tract in Caldwell County protected the creek's water from impending development of 250 home sites.¹⁶

Clean air: The air in too many North Carolina counties remains unsafe to breathe. Ground-level ozone – also known as “smog” – irritates the respiratory system, reduces lung function, and can trigger asthma attacks, with children and those with lung disease at particular risk of health impacts.¹⁷ In its 2011 *State of the Air* report, the American Lung Association gave 22 North Carolina counties grades of “F” for air quality based on the number of days from 2007 through 2009 on which smog levels exceeded those believed to cause health effects in vulnerable people.¹⁸

Land conservation can help to clean up North Carolina's air. An increase of 20 to 40 percent in urban tree cover is estimated to reduce hourly ozone concentrations by 2.4 to 4.1 percent during daylight hours, reducing the amount of time during which North Carolina's air is unsafe to breathe for vulnerable people such as children, the elderly and those with lung disease, and helping the region comply with air quality standards.¹⁹ Trees generate cooler temperatures, making conditions less hospitable for the formation of ozone smog. They also absorb key air pollutants such as nitrogen oxides, sulfur dioxide, carbon monoxide and ozone.²⁰

Conservation Enhances Quality of Life, Giving North Carolina an Economic Advantage

North Carolina's natural lands add to our state's quality of life, which is a key asset in attracting and retaining the emerging businesses and talented, skilled people who will fuel the growth of the state's “knowledge economy.”

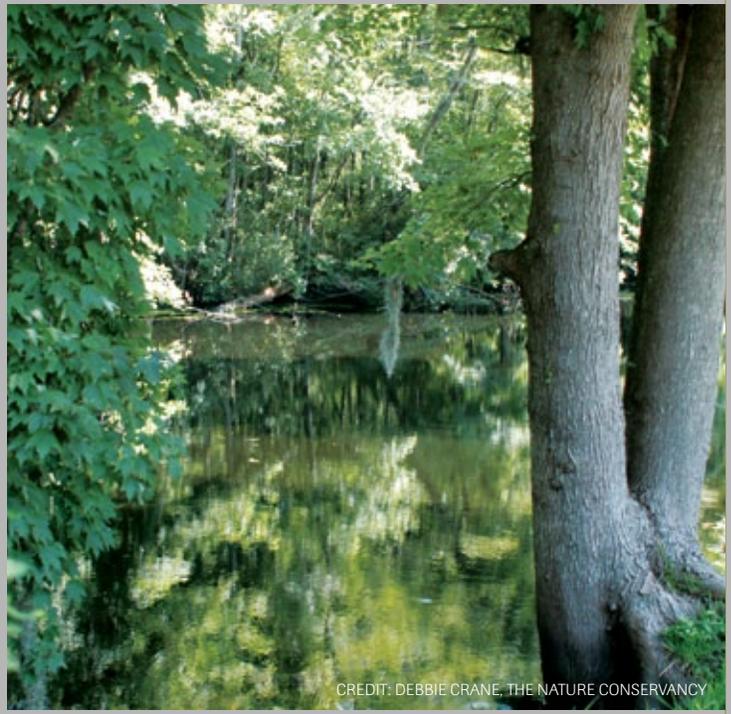
A 2003 report by researchers at UNC-Chapel Hill concluded that “quality of life is becoming an increasingly important consideration in modern business location decisions. This is particularly true for high-technology firms that are less tied to traditional location factors such as transportation costs, proximity to raw materials, and cheap labor.”²¹ More recently, an annual report on real estate trends produced by the Urban Land Institute and PricewaterhouseCoopers found that “[e]mployers wanting to lure the best [G]eneration-Y brainpower are paying careful attention to where this ... group of young adults wants to settle,” noting that “high quality of life places do better.”²²

Land conservation efforts can add to North Carolina's quality of life in several ways:

Creating vibrant cities and towns – With young people and retiring Baby Boomers increasingly seeking lifestyles that

provide convenient access to a variety of amenities, conservation programs help sustain and improve the quality of life in cities and towns. Parks and recreation investments provide access to community centers, ball fields and hiking and biking trails that foster a sense of community and enable active recreation that contributes to healthy lifestyles. Conservation of land along streams and in floodplains improves water quality for drinking and recreation.

Providing access to fresh, local food – Interest in fresh, local food has skyrocketed in recent years. There were approximately 217 farmers markets operating in North Carolina in 2011, and approximately 100 farms in the state that engaged in community-supported agriculture.²³ Access to high-quality local food is increasingly sought by tourists as well – the web site TripAdvisor named Asheville one of its Top 10 Food and Wine Destinations in the U.S., alongside such cities as New York, Las Vegas and New Orleans.²⁴ Agricultural preservation programs play a critical role in protecting high-quality farmland at the urban fringe – exactly the land that is both at highest risk of being lost to development and is most important for the viability of vibrant local food networks.



CREDIT: DEBBIE CRANE, THE NATURE CONSERVANCY

Conservation Success Story:

COVE SWAMP

Lake Waccamaw is a truly unique treasure. Located in Columbus County, Lake Waccamaw is the largest of the Carolina bays (oval-shaped freshwater lakes) and among the most ecologically vibrant. The lake contains several species of fish and mollusks found nowhere else on earth.³⁶ The lands that surround Lake Waccamaw are no less special, with at least five state-designated rare plants to be found within Lake Waccamaw State Park.³⁷

Cove Swamp is a 441-acre tract of forested wetland just northwest of Lake Waccamaw. The land had once been part of Lake Waccamaw before being severed from the lake by a canal and ridge. The owner of the land had planned to clear-cut the area for timber – a move that could have disrupted the tract's cypress-gum forest and the wildlife that depend on it, threatened water quality, and degraded scenic values along the lake.³⁸

In response, local citizens and non-profit organizations campaigned to protect the land. North Carolina's conservation trust funds provided the lion's share of the funding needed to obtain Cove Swamp, with the Clean Water Management Trust Fund and the Parks and Recreation Trust Fund combining to supply \$650,000 of the \$700,000 needed to purchase the land.³⁹ The rest was raised by The Nature Conservancy and local groups.

Originally acquired by The Nature Conservancy, Cove Swamp has been transferred to the state of North Carolina and is now part of Lake Waccamaw State Park.



Participation in outdoor recreation activities, including adventure activities such as rock climbing, has increased in recent years, adding to North Carolinians' quality of life and drawing new visitors to state parks and other recreational areas. State parks add more than \$400 million to North Carolina's economy each year. **Location:** Rumbling Bald, Chimney Rock State Park. CREDIT: ALAN CRESSLER

Providing opportunities for outdoor recreation – Access to high-quality parks and natural lands is a factor in the housing decisions of people of all ages. Participation in outdoor recreation activities has boomed in recent years.

Between 1995 and 2006, the number of North Carolina residents participating in fishing increased by 66 percent, the number of boaters by 31 percent, and the number participating in “outdoor adventure activities” by 88 percent.²⁵ (See Figure 1.)

Expanding opportunities for outdoor recreation through the acquisition of land for state parks and game lands, development of local parks, preservation of other special places, and assembly of rights of way for long-distance trails can help attract and retain new residents.

Conservation Reduces the Impact of Floods

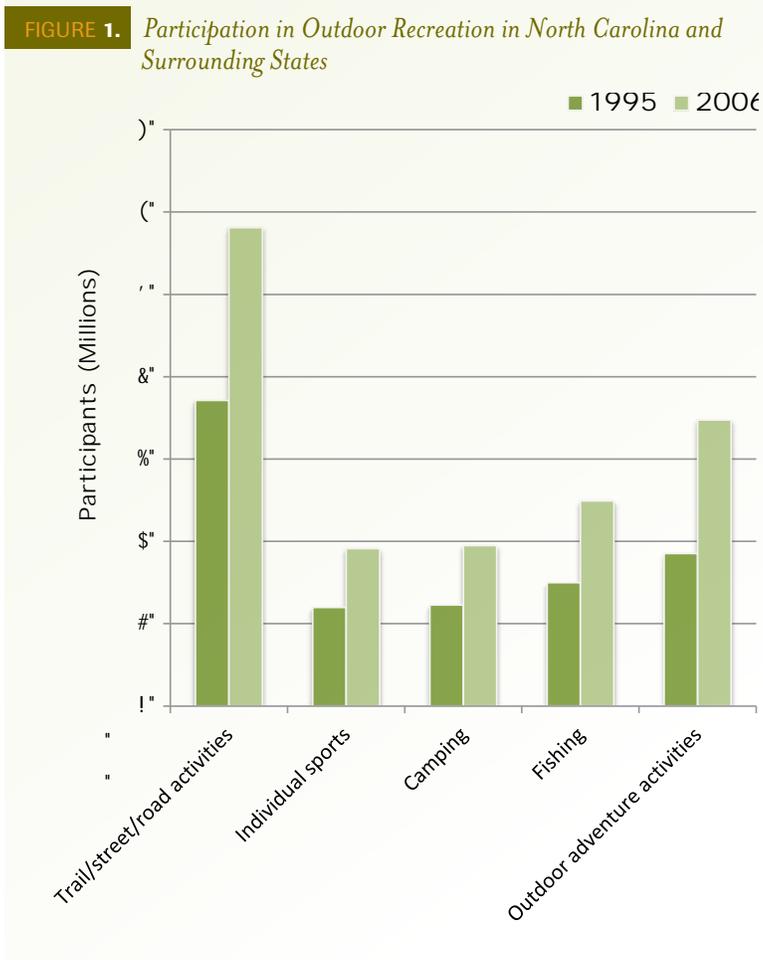
Flooding – whether caused by heavy rains or tropical storms – is a real concern across North Carolina. Since the beginning of 2005, flooding events (other than those caused by tropical storms) inflicted at least \$57 million in property damage and \$139 million in crop damage in the state, while claiming at least 16 lives.²⁶

Flooding could become even more of a threat in the future:

- Development can increase both the potential for flooding and the amount of damage floods do once they strike. Replacing natural land with impervious surfaces – roofs, parking lots and other paved areas – speeds the flow of water into drainage systems and rivers, increasing the potential for flash floods.
- Population growth and development increase the pressure to build in floodplains, putting more people, buildings and infrastructure at risk.

North Carolina has invested vast sums in the construction of levees and stormwater management systems to help prevent flooding, but land conservation programs can ensure that natural lands continue to play an important and economically valuable role in flood prevention.

The trees and vegetation in undisturbed floodplains help prevent disastrous floods by providing land for rivers to expand over and by storing water. Each acre of wetland can absorb approximately one million gallons of water, enough to cover three acres of land in a foot of water.²⁷ Protecting wetlands can minimize damage to lives and property from flooding. Similarly, protecting wetlands in coastal areas preserves critical buffers that dampen the impact of hurricanes and coastal storms – a service worth an average of \$620 million per year in North Carolina.²⁸



Conservation Protects Native Plants and Animals

North Carolina's native plants and animals are among our most irreplaceable – and often most threatened – treasures. North Carolinians have a responsibility to protect these natural treasures for future generations to enjoy. Conservation programs help the state achieve that goal.

Native species of plants and animals are those that existed here prior to European settlement. Native plants are important because they have developed to thrive in local environmental conditions, provide food and shelter to other wildlife, and contribute to the beauty of the landscape. There are more than 4,000 native species of plants in North Carolina, of which 700 are rare and 26 are federally listed as endangered or threatened.²⁹

Native animals are valuable for their own sake and are part of delicate, interconnected ecosystems that sustain everything from healthy forests to healthy fisheries.

Unfortunately, development has paved over or fragmented habitat for native plants and animals, threatening some species with extinction.³⁰ Brunswick County has North Carolina's largest concentration of rare plant species, yet has been the site of intense development of housing and golf courses. The carnivorous Venus flytrap – found only in a small region of the Carolinas – has seen its habitat whittled away, with at least 43 of 150 populations of the plant believed to have been wiped out.³¹ Acquisition of land by the state's Plant Conservation Program and non-profit organizations has protected rare plants in the area – the Nature Conservancy's Boiling Spring Lakes Preserve hosts carnivorous Venus flytraps and pitcher plants, a variety of orchids, and other rare plants.³² Land acquisition is also critical to ensure that the land can be managed properly without interfering with neighboring communities – for example, through the use of controlled burning in fire-dependent ecosystems.

The longleaf pine forest is another characteristic North Carolina ecosystem that is under threat. Longleaf pines can live up to 300 years and once covered more than 60 million acres of the southeastern U.S.³³ The turpentine, rosin and strong lumber produced by these trees have historically made them appealing for logging, while development now threatens those forests that remain. In the Southeast, only three percent of the original longleaf pine forest remains. North Carolina's remaining longleaf pine forests serve as the home of several important and imperiled species. In recent years, non-profit organizations, state government and the U.S. Army have teamed up to protect buffer zones around Fort Bragg, a "win-win" for the Sandhills region that protects the longleaf pine ecosystem and the species that depend on it, provides the Army with forested buffers to separate the public from military training activities, and helps secure the Army's future viability in the region, protecting the economic life-blood of the Fayetteville area. (See "Conservation Success Story: Carvers Creek State Park," page 16.) A similar conservation partnership with the U.S. Marine Corps has protected thousands of acres of wetlands and other sensitive ecosystems on the borders of Camp Lejeune.

CONCLUSION

Land conservation is a boon to North Carolina's economy, sustaining long-time industries such as forestry and agriculture while bringing new economic opportunity through tourism and outdoor recreation. Natural lands and working landscapes save millions of dollars in flood control and water purification; clean our air; provide fresh, healthy food; and help North Carolina attract and retain businesses and knowledge workers that form the core of the state's emerging 21st century economy.



The Venus flytrap occurs in nature only in a small region of the Carolinas. In Brunswick County, however, housing and golf course development have wiped out large areas of the plant's habitat. Land conservation efforts are protecting the plant's remaining habitat and preserving the habitat of other rare species throughout North Carolina. **Location:** The Green Swamp.
CREDIT: SKIP PUDNEY.

WHY NORTH CAROLINA MUST RENEW ITS COMMITMENT TO CONSERVATION

Over the past decade, North Carolina has made tremendous progress in protecting our most valuable and vulnerable watersheds, wildlife habitat and working landscapes. Thanks to a concerted effort by state and local governments, non-profit groups, land trusts, agricultural organizations, and dedicated citizens across the state, North Carolina has ensured that hundreds of thousands of acres of what Sir Walter Raleigh called “the goodliest soile” will endure for future generations.

Unfortunately, there remain critical unmet land conservation needs. While the recent recession cooled off the development fervor that claimed vast areas of forests and farms in recent decades, it also blunted the momentum of the state’s land conservation efforts – slowing the pace of land conservation to a crawl.

Continued Growth Means Continued Pressure on Places that Matter

Population growth continues to create pressure for the conversion of working landscapes and natural areas into housing and commercial developments. North Carolina has added more people in the last 50 years than it did in the 375 years after Sir Walter Raleigh’s landing at Roanoke Island.⁴⁰ While North Carolina’s population growth has slowed since the beginning of the recent recession, it has not stopped, as our high quality of life and economic opportunity continue to attract new residents. Since 2005, another 976,000 people have made North Carolina home.⁴¹ North Carolina remained the fifth-fastest growing state in the nation by total population growth during the 2010-2011 period.⁴² (See Figure 2.)

North Carolina, like many states, has accommodated much of its population growth in sprawling developments that consume vast amounts of land. North Carolina developed more land in the quarter-century between 1982 and 2007 than in the state’s entire previous history, with a corresponding loss of cropland, pastures and forests.⁴³ Between 1997 and 2007, North Carolina added more than 1.1 million acres of developed land, while losing a roughly equivalent amount of cropland, pastures and forests. (See Figure 3.)

Development pressure on North Carolina’s natural lands and working landscapes has decreased sharply in recent years. By 2009, for example, the number of building permits issued for single-family homes in North Carolina had declined to less than one-third the number issued in 2005.⁴⁵ (See Figure 4, next page.)

It is only a matter of time, however, before demand for development picks up again. Experts predict that North

FIGURE 2. *North Carolina Population*

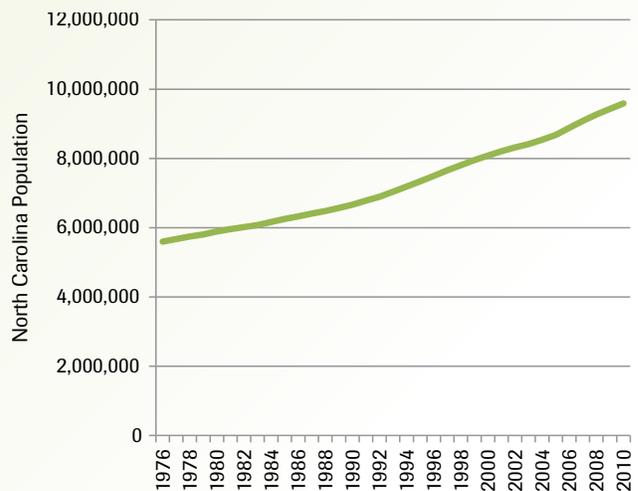


FIGURE 3. *Trends in Developed Land, North Carolina, 1982-2007⁴⁴*



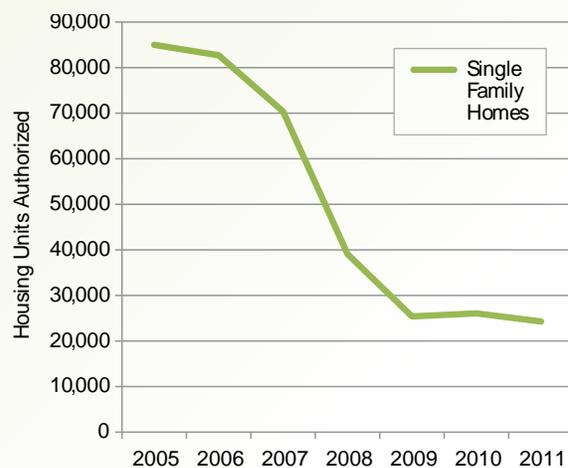
Carolina will continue to add population at a rapid pace. By 2030, 12.5 million people are expected to make North Carolina home, an increase of 2.8 million over 2011.⁴⁷ That amounts to an average of roughly 400 new residents per day.

Key Conservation Needs Are Still Left Unmet

North Carolinians have not been content to sit back and watch our most valuable natural lands and working landscapes disappear forever. From rural areas to big cities, and at scales ranging from the individual farmstead to tracts of tens of thousands of acres, North Carolinians have found creative ways to protect many of our most important lands.

In 2000, the North Carolina General Assembly established a goal of permanently protecting one million acres of open space by the end of 2009. The “Million Acre Initiative” served as a challenge and rallying point for a variety of land conservation efforts. Over the last 12 years, North Carolina has made progress on many fronts, including:

FIGURE 4. *Building Permits Issued for Single-Family Homes in North Carolina⁴⁶*



- The investment of significant amounts of public and private money in land acquisition and conservation, particularly between 2004 and 2007. In 2007, for example, North Carolina’s four conservation trust funds issued a total of \$172 million in grants, much of it for land conservation projects. Those grants leveraged millions of additional dollars in investments from private citizens, non-profit organizations and local governments.⁴⁸
- The development of innovative planning tools designed to identify lands in critical need of preservation, prioritize them for protection, and track progress toward conservation goals. State and local governments have undertaken detailed assessments of forest land, agricultural land, natural heritage areas and recreational needs, providing a foundation of knowledge to guide future conservation efforts. The Conservation Planning Tool, managed by the NC Natural Heritage Program, is one such valuable tool to guide conservation efforts.



Since 2005, North Carolina has protected hundreds of thousands of acres of forests, farms and important natural areas, such as Chowan Swamp Game Lands (above). The state’s commitment to land conservation has waned in recent years. CREDIT: MARK DANIELS.

- The creation of new tools for conservation, including the revitalization of the Agricultural Development and Farmland Preservation Trust Fund, the creation of Enhanced Voluntary Agricultural Districts, and the expansion of property tax incentives for conservation land owners.

As a result of these and other efforts, North Carolina succeeded in protecting hundreds of thousands of acres of land over the course of the Million Acres Initiative. Between 1999 and 2009, more than 680,000 acres of land were permanently protected in North Carolina – increasing North Carolina’s stock of protected land by 24 percent.⁴⁹

Continued, page 17.



Conservation Success Story:

CARVERS CREEK STATE PARK

The Sandhills region is home to one of North Carolina's most important and threatened ecosystems – the longleaf pine forest. Once a dominant ecosystem throughout the Southeast, longleaf pines now cover less than 250,000 acres in North Carolina.⁶⁰ The region is also home to one of North Carolina's economic engines, Fort Bragg, which is the largest U.S. Army base in the world by population and has an annual economic impact of \$9.5 billion.⁶¹

In recent years, residential and commercial growth around Fayetteville has threatened the preservation of longleaf pine forests and inhabitants such as the federally endangered red-cockaded woodpecker. Development has also increasingly encroached on the borders of Fort Bragg, raising the potential for conflicts between military training activities and nearby residents. In response, the Army, state government and non-profit organizations have teamed up to protect important lands at the borders of the installation and throughout the Sandhills region.

Carvers Creek State Park – a 4,000-acre oasis of natural beauty and cultural importance that is due to open to the public in 2012 – is one outgrowth of that work.

Carvers Creek State Park was authorized by the General Assembly in 2005 and has been taking shape since. The Nature Conservancy has played a large role in the creation of this park by aiding in the acquisition of 2,433 acres near U.S. 401 north

Carvers Creek State Park protects longleaf pine forest and provides an important buffer between Fort Bragg and surrounding communities.

CREDITS: CARVERS CREEK STATE PARK, RYAN ELTING, THE NATURE CONSERVANCY; TRAINING AT FORT BRAGG: U.S. ARMY.

of Fayetteville and by donating 1,420 acres of James Stillman Rockefeller's Long Valley Farm.⁶²

In 2009, in an example of the types of partnerships that fuel conservation efforts across North Carolina, the Parks and Recreation Trust Fund, the Natural Heritage Trust Fund, and the U.S. Department of Defense collaborated to fund The Nature Conservancy's purchase of the 1,263-acre Clark property neighboring Fort Bragg.⁶³ The property, which has been transferred to the state for incorporation into Carvers Creek State Park, is both ecologically important and allows the military to continue its current training methods without having to adapt to new neighboring developments.

While Carvers Creek State Park is scheduled to open during 2012, plans for the park continue to develop. Current projects include the restoration of the Rockefeller estate, while a draft master plan for the park includes potential future improvements such as the addition of other tracts of land and the development of fishing piers, separate trails for pedestrians and bicyclists, and camping areas.

With continued investment by the people of North Carolina, Carvers Creek State Park can emerge as a true natural and recreational jewel for Cumberland County and the Sandhills region.

However, the Million Acres Initiative came up nearly one-third short of its goal – largely due to inadequate funding for the state’s conservation trust funds. The four trust funds play a key role in catalyzing preservation of watersheds, agricultural lands, natural heritage areas and parkland throughout North Carolina.

Since the end of the Million Acres Initiative, state funding for land conservation has nearly dried up. One key source of funding for land preservation efforts – the fee on real estate deed transfers that supports the Natural Heritage Trust Fund and the Parks and Recreation Trust Fund – has been reduced by more than 50 percent due to the decline in the housing market.⁵⁰ The governor and General Assembly have repeatedly diverted funding intended for conservation to other uses, redirecting trust fund resources to plug gaps in the state’s general fund and shifting the task of paying some state agency staffers to the trust funds.

Even at the height of North Carolina’s investment in land conservation in 2007, there were tremendous unmet needs, and conservation spending made up a tiny share of the state budget. The three trust funds making substantial grants at the time made \$172.1 million in grants (for all purposes, not just land acquisition), but could still only fill half of all requests for funding.⁵¹ Grants made by the four conservation trust funds were equivalent to 0.9 percent of the total state general fund expenditures that year.⁵²

By 2011, however, the amount of grants sought from the state’s four conservation trust funds had shrunk to approximately \$219 million, likely as a result of declining availability of matching revenue and a reduction in the number of applications due to the perceived declining odds of success. The amount of grants authorized declined even more quickly, however, to a mere \$34 million – meaning that only about 16 percent of grant requests to the four trust funds were funded.⁵³ (See Figure 5.) This figure actually *understates* the severity of the drop-off in funding for land acquisition, as it includes grants made with money appropriated in previous years and reflects grants made for all purposes, not just land conservation. In 2011-2012, for example, the Clean Water Management Trust Fund received \$11.25 million in appropriations – roughly 11 percent of its former \$100 million annual statutory appropriation – of which \$3 million was to be used for administration and debt service and additional funds were devoted to water infrastructure projects.⁵⁴

The same economic pressures facing the state government have also affected many other individuals and organizations engaged in land conservation – landowners, local governments and non-profit organizations among them – forcing them to pull back on their investments.

FIGURE 5. *Conservation Trust Fund Grants, 2007 & 2011*⁵⁵

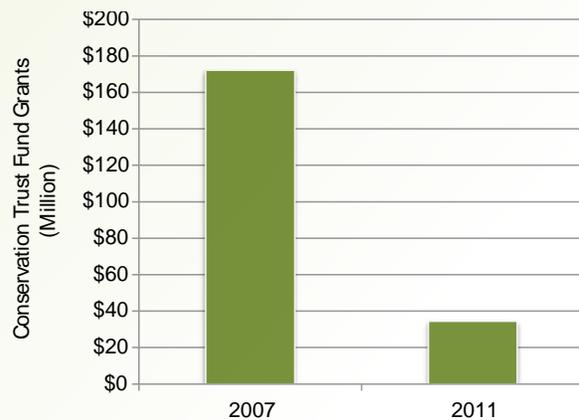
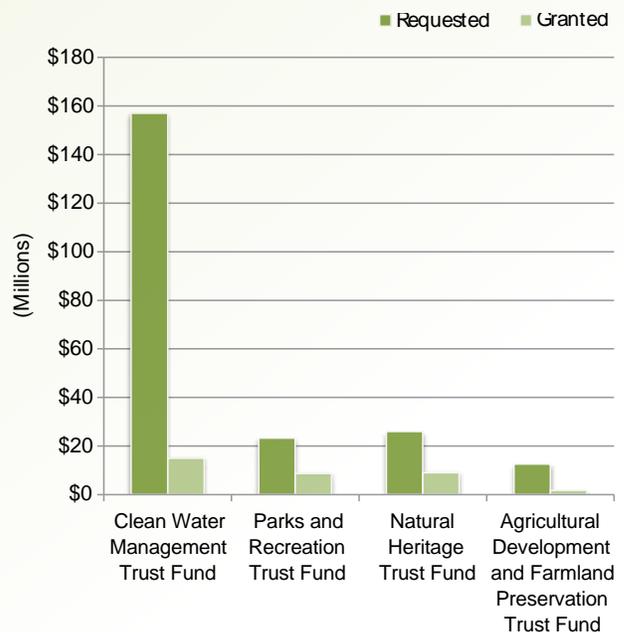


FIGURE 6. *Gap Between Funding Requests and Grants Issued by North Carolina Conservation Trust Funds, 2011*⁵⁶



As a result, the amount of land protected in North Carolina has declined precipitously since the beginning of the recession. Between 2005 and 2008, an average of 75,160 acres of land was being protected per year in North Carolina; between 2009 and 2011 an average of 29,580 acres per year was protected. (See Figure 7)

The Clock Is Ticking

This dramatic drop in land conservation represents a missed opportunity for North Carolina. The economic downturn provides both a unique opportunity to advance the objective of land conservation and a rationale for strong and immediate action.

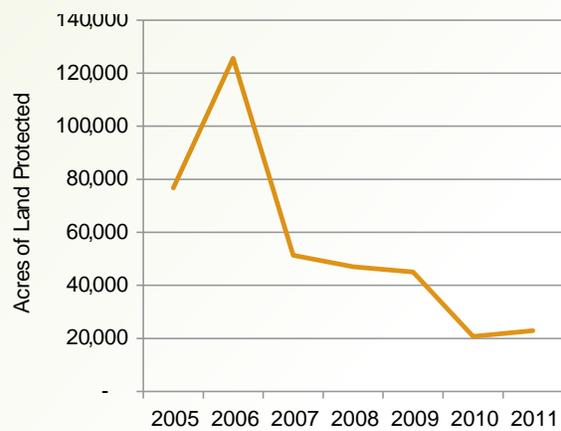
The depressed housing market has lowered land prices, making land conservation more affordable. While some land trusts are working with banks and real estate agents to secure protection for lands made available through foreclosure, the lack of funding for conservation has made it difficult for North Carolina to take advantage of the opportunity presented by lower land prices.

The economic downturn also brought crushing unemployment to North Carolina, with the jobless rate remaining at 9.9 percent in February 2012.⁵⁸ Conservation projects have the potential to address unemployment by creating short-term jobs. Land conservation puts people to work building and repairing park facilities and recreational trails, restoring stream banks, and replanting forests. By curtailing funding for land conservation at a critical time, North Carolina is missing an opportunity to revitalize our economy and put it on a sustainable foundation for the future.

Perhaps even more troubling, the severe reductions in conservation funding in recent years will make it more difficult for North Carolina to ramp up its land conservation efforts when the economy rebounds and development pressure resumes. It can take years to build local support and assemble sources of funding for a park or land conservation project. The uncertainty about the level of funding that will be available for conservation activities in future years may discourage some citizens, non-profits or local governments from investing the substantial effort and resources needed to get a land conservation project off the ground. Cutbacks to the conservation trust funds have also led to the loss of staffing resources and expertise. The staff of the Clean Water Management Trust Fund, for example, was reduced by 38 percent between 2008 and 2012.⁵⁹ As a result of these changes, the major reduction in state conservation funding over the last several years will likely have adverse effects years down the road.

If North Carolina is to regain momentum in protecting our most important natural, recreational and watershed lands and working landscapes – and be prepared for the resumption of development pressure once the state’s economy improves – the state must act soon to reinvigorate its land conservation programs. The clock is ticking.

FIGURE 7. *Land Preserved through Select Conservation Programs, 2005-2011⁵⁷*



Conservation Success Story:

UPPER NEUSE CLEAN WATER INITIATIVE

As Raleigh developed at a breakneck pace in the first years of this century, Mayor Charles Meeker knew he had a special dilemma on his hands: How could he protect the city's drinking water supply reservoir, when it was fed by streams and rivers outside his jurisdiction?

Raleigh's water comes from Falls Lake, the largest and furthest downstream of nine drinking water reservoirs in the Upper Neuse River Basin. The 770-acre basin stretches across six counties and contains all or part of eight municipalities.

To protect its water supply, Raleigh had to protect the land around it. To protect that land, Meeker had to enlist the support and participation of more than a dozen local governments. And he needed help from organizations that knew how to protect land to protect water.

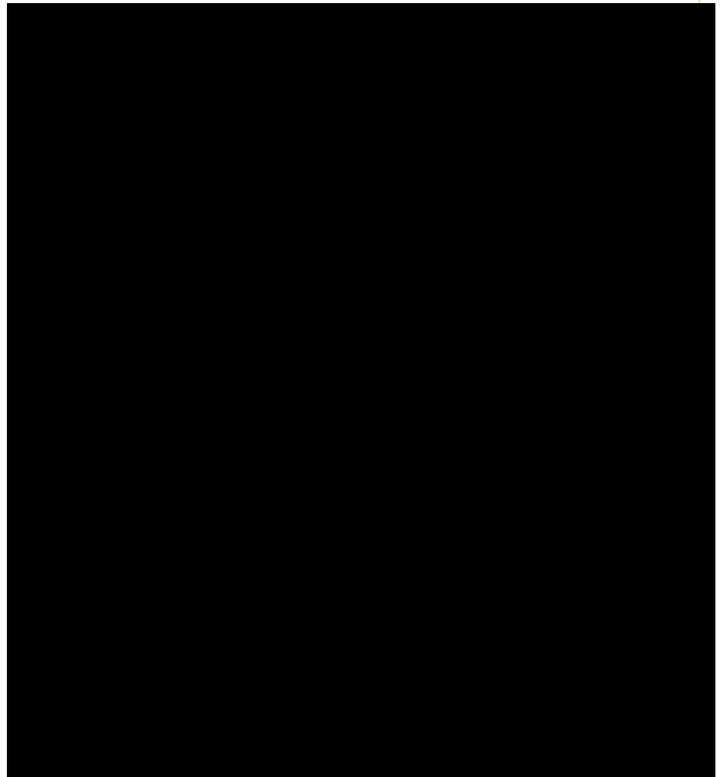
In 2005, he convened a meeting of conservation groups that had been protecting water quality in the Upper Neuse River Basin for decades. The result was the Upper Neuse Clean Water Initiative (UNCWI), a formal partnership of six conservation groups – Ellerbe Creek Watershed Association, Eno River Association, Tar River Land Conservancy, Triangle Greenways Council, Triangle Land Conservancy and the Trust for Public Land – facilitated by the Conservation Trust for North Carolina.

Instead of relying solely on water treatment plants, UNCWI works with landowners, local governments and other partners to target conservation of priority forests, wetlands, floodplains and other vegetated areas that serve as natural "water treatment facilities."

From its inception to the end of 2011, partners in the Upper Neuse Clean Water Initiative have helped protect over 6,000 acres along 61 miles of priority streams.

North Carolina's conservation trusts funds have been essential to UNCWI's success. The Clean Water Management Trust Fund (CWMTF) has given more than \$11 million in grants to the partnership to help purchase land and conservation easements worth more than \$59 million.

"Water spurs our economy, it protects the health of our citizens, it provides great recreational opportunities for all those who live in the state and that come to visit the state," CWMTF Executive Director Richard Rogers told the Conservation Trust for North Carolina. "UNCWI has provided a focused, collaborative approach to water supply protection that brings multiple interests into the process to ensure good stewardship of public funds for maximum water supply protection."



The Upper Neuse Clean Water Initiative has protected thousands of acres of land, securing water quality in waterways like Falls Lake (above), the drinking water source for the city of Raleigh. CREDIT: MARGARET LILLARD, CONSERVATION TRUST FOR NORTH CAROLINA.

The Natural Heritage Trust Fund and the Parks and Recreation Trust Fund have helped support 17 projects that not only safeguard water supplies, but also protect important cultural and recreational features. And people who own land within the basin have collectively donated more than \$23 million worth of property to remain undeveloped.

The City of Raleigh contributed significant budget allocations to UNCWI, then, in late 2011, it established a small "watershed protection fee" included in customers' monthly water bills to benefit UNCWI projects. The City of Durham instituted a similar fee to fund its own land protection projects in the basin.

A new \$1.7 million grant from the U.S. Endowment for Forestry and Communities is helping UNCWI partners promote and maintain sustainable forest practices on strategically located lands in the basin, again to reduce runoff of pollutants.

"Just as there's no single approach that will safeguard our drinking water supplies, there's no single group that can accomplish the task by itself," said Endowment President and CEO Carlton Owen. "The Upper Neuse Clean Water Initiative is an outstanding example of how ideas and solutions from many partners can flow together to reach a common goal."

NORTH CAROLINIANS SUPPORT LAND CONSERVATION

Support for land conservation in North Carolina is nearly universal. No matter where you go in North Carolina – in farm communities, cities or suburbs, or in the mountains, the Piedmont or along the coast – you’ll find people who believe the state ought to be doing more to preserve our precious natural lands for the future.

North Carolinians have expressed their support for land conservation both in surveys and at the ballot box:

- A 2011 poll found that 83 percent of those polled agreed that protecting North Carolina’s air and water is very important for attracting good jobs to the state.⁶⁴
- A 2009 survey found that 72 percent of respondents wanted the state to maintain or increase the amount of money spent on land and water conservation.⁶⁵

Conservation Success Story:

ROSE CREEK

There are many types of land that are important for North Carolina to protect – buffer lands along pristine streams, corridors for hiking trails, game lands, scenic vistas from the Blue Ridge Parkway, historically and culturally important sites, and property close to other conservation areas that can provide contiguous habitat for wildlife.

Sometimes, a single tract carries all these virtues. The 535-acre Rose Creek tract in Mitchell County is one such special piece of land.

The Rose Creek tract was originally obtained by the Conservation Trust for North Carolina from a Texas-based developer in 2008, and was subsequently transferred to the NC Wildlife Resources Commission for management as a game land.⁷¹ The Rose Creek tract has one mile of frontage along the Blue Ridge Parkway and is visible from one of the parkway’s many overlooks.⁷² The tract is also traversed by 1.5 miles of the original route of the Overmountain Victory Trail, the path taken by hundreds of patriot militiamen in 1780 on their way to a pivotal victory at Kings Mountain. An estimated 1 million people hike sections of the Overmountain Victory Trail each year.⁷³

It took the help of many people to make the Rose Creek acquisition happen. The Clean Water Management Trust Fund, Natural Heritage Trust Fund, NC Division of Parks and Recreation, the Open Space Institute, and philanthropists Fred and Alice Stanback of Salisbury all put forward resources to make the \$5.6 million purchase a reality.⁷⁴

The land is now managed by the NC Wildlife Resources Commission whose director, Gordon Myers, explained that, “The



Members of the Overmountain Victory Trail Association take part in their annual re-enactment of the march to Kings Mountain. The Rose Creek tract includes 1.5 miles of the original Overmountain Victory Trail as well as frontage along the Blue Ridge Parkway. CREDIT: RICHARD BROADWELL, CONSERVATION TRUST FOR NORTH CAROLINA.

Rose Creek property’s proximity to other lands protected for conservation means plenty of room for wildlife to persist. Opening this tract to the public will be a great opportunity for outdoor enthusiasts to enjoy the unique beauty of North Carolina’s mountain landscape and the wide range of activities that can be enjoyed there.⁷⁵

In addition to providing hunting opportunities as game land, Rose Creek preserves the water quality of tributaries of the North Toe River, which provides drinking water to the town of Spruce Pine and serves as habitat for trout and other wildlife.

- A 2008 survey conducted by the state Division of Parks and Recreation found that:
 - 94 percent of respondents agreed with the statement, “It is important to protect natural and scenic resources by acquiring land even if these areas may not be accessible to the public until planning, design and funding are in place to be developed as park units.”
 - 95 percent of respondents agreed with the statement “NC Parks should add new parks to provide additional recreational opportunities.”⁶⁶
- According to the National Survey of Recreation and the Environment:
 - 91 percent of residents of North Carolina and surrounding states believe it is important or very important to conserve and protect natural resources, especially water;
 - 81 percent believe it is important or very important to protect ecosystems and wildlife habitats.⁶⁷

North Carolinians support land conservation even when it comes to opening their own wallets. The 2011 poll referenced above found that 54 percent of respondents were willing to preserve a higher state sales tax rate in order to pay for parks and open space.⁶⁸ Similarly, North Carolinians have supported land conservation at the ballot box over and over again, enacting numerous local ballot measures to fund parks, recreation and open space initiatives. Since 2005, according to the Trust for Public Land, North Carolina voters have adopted 11 local open space funding initiatives while rejecting only three, investing \$222 million in conservation. The average vote in those 14 elections was 64 percent in favor of open space and parks spending, to only 36 opposed.⁶⁹ (See Table 1.)

TABLE 1. Recent North Carolina Local Conservation Ballot Measures
(approved measures in green, rejected measures in orange)⁷⁰

Jurisdiction Name	Year	Conservation Funds at Stake	% Yes
Cary	2005	\$10,000,000	75%
Mecklenburg County	2005	\$20,000,000	47%
New Hanover County	2006	\$10,700,000	67%
Greensboro	2006	\$2,400,014	62%
Fuquay-Varina	2007	\$2,000,000	79%
Raleigh	2007	\$39,888,721	72%
Wake County	2007	\$50,000,000	71%
Mecklenburg County	2007	\$33,990,000	64%
Belmont	2007	\$2,700,000	69%
Clayton	2008	\$2,000,000	74%
Guilford County	2008	\$4,000,000	48%
Mecklenburg County	2008	\$60,000,000	62%
Gastonia	2010	\$1,000,000	49%
Holly Springs	2011	\$8,500,000	59%

PROTECTING THE PLACES THAT MATTER: PROGRESS TO DATE AND AN AGENDA FOR THE NEXT FIVE YEARS

In 2005, the Land for Tomorrow report, *Saving the Goodliest Land*, set five-year conservation goals for preserving places that matter in North Carolina for today and the future.

North Carolina has made tremendous progress in land conservation since 2005, but many of the goals laid out in the earlier report remain unmet. In this section, we evaluate the progress in meeting many of the conservation needs identified in the 2005 report and propose new conservation goals to guide North Carolina for the next five years.⁷⁶

Overall Progress

Since the beginning of 2005, non-profit land trusts and local, state and federal governments have protected at least 389,400 acres of land in North Carolina through land purchases and donations, conservation and agricultural easements, and other conservation efforts.⁷⁷

Among the lands protected from development were tens of thousands of acres of pristine forests, ecologically important wetlands and prime agricultural land. Of the land protected since the beginning of 2005, sufficient geographic information was available to identify the pre-existing land cover for more than 357,700 acres of land.⁷⁸

The pace of land conservation between 2005 and 2011 averaged less than 56,000 acres per year. To put this figure in context, North Carolina would have needed to protect an average of 100,000 acres per year between 2000 and 2010 to achieve the state's million-acre conservation goal.

Most of the state's progress in land conservation took place during the first few years of the 2005-2011 period. Between 2005 and 2008, North Carolina was protecting an average of 75,160 acres of land per year; between 2009 and 2011, the state protected only an average of 29,582 acres per year.

The primary reason for the lack of progress in land conservation has been the drying up of state funding through the conservation trust funds. The 2005 *Saving the Goodliest Land* report proposed a \$3.9 billion investment over five years (\$780 million per year) from a variety of sources to meet the state's land conservation needs. But the state's investment in land conservation – which is critical for leveraging funding from other sources – has fallen sharply in recent years. Between fiscal year 2007 and fiscal year 2010, state spending on land acquisition declined by 70 percent to only \$44 million per year.⁸⁰

FIGURE 8. *Land Protected in North Carolina 2005-11*
(Includes only areas for which geospatial data are available, and includes some areas that were protected prior to 2005, but subsequently transferred to state ownership. See Methodology.)

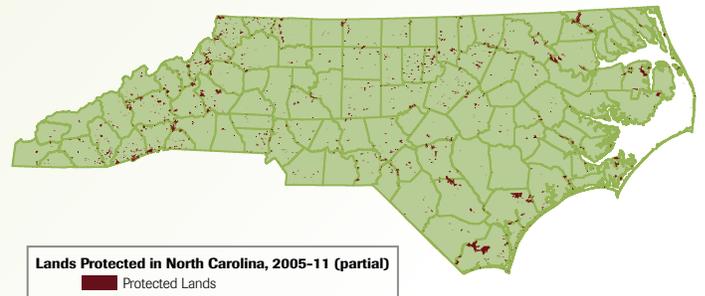
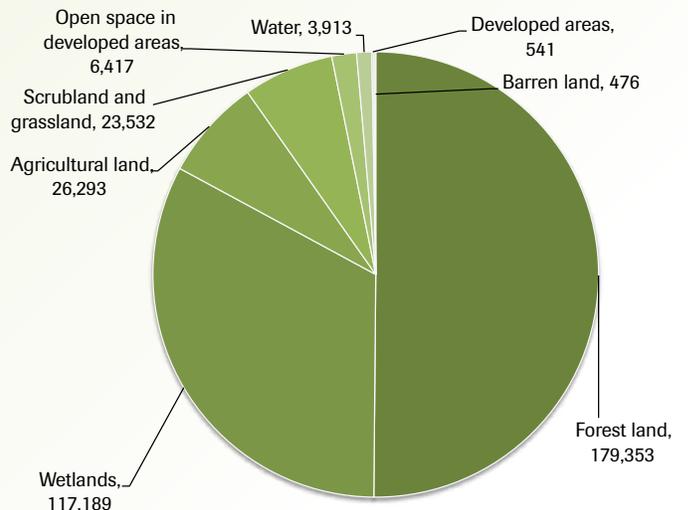


FIGURE 9. *Acres of Land Conserved in Various Land Cover Categories, 2005-2011*⁷⁹



The Appendix reviews the role of government, non-profit and other actors in land conservation, providing data on the amount and types of land protected by various entities.

The following section describes the progress made to date on land conservation of various types of places that matter, examines the challenges particular to each category of land, and establishes a new goal to guide the next five years.

Rivers, Wetlands and Other Critical Source Waters

2005 Goal: Protect 6,000 miles of stream banks and floodplains.

Why rivers, wetlands and other critical source waters matter: North Carolina's water resources provide numerous benefits to the state:

- **Rivers** provide drinking water, wildlife habitat and recreational opportunities such as swimming, canoeing and rafting.
- **Wetlands** help prevent loss of life and property from flooding and mitigate damage from hurricanes. Wetlands provide valuable nurseries for the fish that supply North Carolina's fishing industry. They also act as a filter that can prevent harmful pathogens or chemicals from freshwater rivers and streams from entering coastal waters.
- **Source waters** are the foundation of healthy ecosystems and safe drinking water supplies. The complex networks of tiny headwater streams that feed North Carolina's larger rivers and lakes are vital to the quality of those downstream waterways – regulating the flow of floodwaters, recycling nutrients, and delivering clean water that can sustain the needs of wildlife and human communities.



Stream buffers such as this one along Brunswick County's Juniper Creek protect rivers and streams from polluted runoff and absorb floodwaters, protecting nearby communities.

CREDIT: THE NATURE CONSERVANCY.

How they are protected: Streams and rivers are protected by establishing buffers of natural vegetation to prevent sediment and pollutants from reaching the waterways, and to slow the erosive flow of storm water. These buffers can be established by purchase of the land or an easement on the land secured by a non-profit land conservancy or government agency. North Carolina also limits development along stream banks in water supply watersheds, along high-quality and outstanding resource waters, and in other circumstances.⁸¹ Specific regulations also exist in some North Carolina watersheds – such as the Neuse River, the Tar-Pamlico River basin, the Catawba River, Randleman Lake, Goose Creek and Jordan Lake. Wetlands and floodplains are protected both through regulation and through the purchase of key areas.

The state's Clean Water Management Trust Fund (CWMTF) plays a central role in the protection of watershed land across North Carolina. The CWMTF's mission is to restore degraded waters, protect unpolluted waters, and build a network of riparian buffers for public enjoyment and benefit using a variety of strategies, including acquisition of watershed lands.⁸² Recognizing the massive economic value of watershed lands in the provision of clean water and control of floods, the CWMTF has historically been the

most amply funded of North Carolina's four conservation trust funds. Since its establishment in 1996, the fund has allocated \$950 million, leveraging an additional \$1.5 billion in federal, local and private funding.⁸³

The long-term objective: North Carolina should work to ensure permanent protection of riparian zones for rivers and streams, as well as wetlands, headwaters of exceptional and ecologically important waterways, and water supply areas.

Progress since 2005: North Carolina has protected large areas of land around waterways since 2005. Since 2005, grants through the Clean Water Management Trust Fund (CWMTF) have helped protect 1,733 stream-miles of buffers alongside North Carolina's rivers and streams.⁸⁴ The state has also protected approximately 117,000 acres of wetlands through a variety of government and non-profit land acquisition efforts. In addition, the state has moved forward with buffer protection rules for the Goose Creek and Jordan Lake watersheds.

Unfortunately, the CWMTF has been hit hard by recent state budget cuts, providing 87 percent less funding in grants in 2011 than it did in 2007.⁸⁵ Annual funding for the CWMTF was lower in 2011 than when the trust fund was founded in 1996.

Progress compared with 2005 goal: The 1,733 stream-miles of buffers protected by the CWMTF fall well short of the 6,000 stream-miles envisioned in the 2005 report. However, this figure does not tell the full story as it does not include buffers protected through other conservation efforts.

Goal for 2012-2017: North Carolina should seek to protect buffers along an additional five percent of the state's rivers and streams, or 1,750 stream-miles, over the next five years. These protected areas should be part of a total of 200,000 acres protected over the next five years that includes wetlands, land in current and future water supply areas, watersheds of high-priority headwaters, and areas surrounding other water resources with significant economic, ecological or recreation benefits.

Investment proposed: Based on the cost per stream-mile of greenway projects funded by the CWMTF between 2005 and 2011, achieving the protection target set here would require approximately \$270 million over five years in CWMTF grants. This figure only includes CWMTF investments in land acquisition projects; additional funding would be needed to support CWMTF's other activities, such as improving wastewater treatment facilities and restoring degraded waterways.

Working Farms

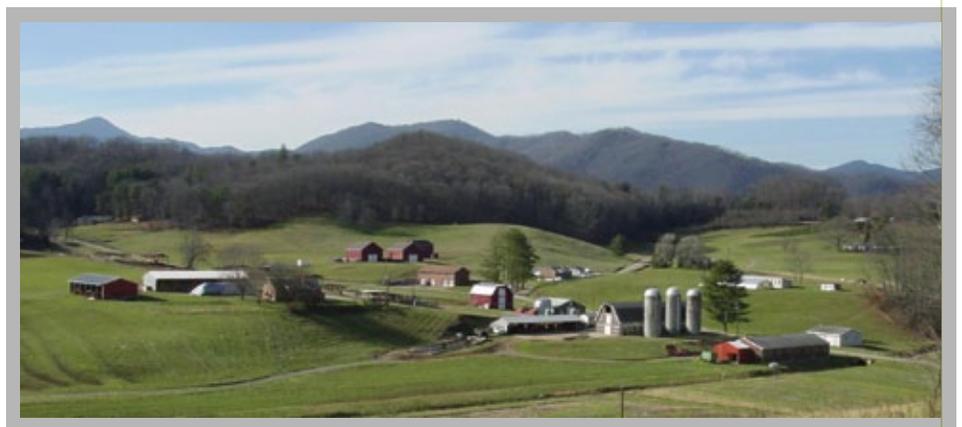
2005 Goal: Protect 50,000 acres of productive farmland.

Why working farms matter: North Carolina's farmland is a valuable resource that provides fresh, locally-grown food for North Carolinians, sustains a \$32 billion agricultural economy, provides wildlife habitat, and delivers other ecological values.

How are they protected:

Agricultural lands in North Carolina are protected through regulation, planning, economic development efforts, land purchases and purchases of development rights or easements. Among the important recent efforts to protect farmland are the following:

- **Land purchases and easements** – Farmers may agree to keep their land in farming (or to reserve it as conservation land) for a specific period of time



Land conservation efforts help keep farmland in agricultural production, safeguarding agriculture's role in North Carolina's economy, protecting sources of healthy, local food, and securing the valuable natural services that farmland provides. CREDIT: NC DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES.

in exchange for payments. Most agricultural easements in North Carolina are in perpetuity, allowing the landowner to take advantage of significant state and federal tax incentives for conservation. In North Carolina, conservation easements have been secured by local governments, soil and water conservation districts and non-profit land trusts, sometimes with grant support from the Agricultural Development and Farmland Preservation Trust Fund, as well as through programs run by the U.S. Department of Agriculture.

- **Voluntary Agricultural Districts** – At least 81 of North Carolina’s 100 counties have adopted ordinances enabling the creation of Voluntary Agricultural Districts (VAD).⁸⁶ Farms that are part of a VAD receive protection from nuisance lawsuits, are eligible for a waiver of water and sewer assessments, and can become eligible for farmland preservation funding, all in exchange for a promise to keep land in farming for a period of time.⁸⁷ VAD ordinances also give farmers a direct say in county government through agriculture advisory boards. Farms enrolled in Enhanced Voluntary Agricultural Districts (EVAD) are eligible for greater benefits in exchange for a stronger commitment to conservation.
- **Farmland protection plans** – At least 35 counties have adopted farmland protection plans that identify the role of agriculture in the county, challenges facing local farmers, and ways to maintain a viable agricultural community.⁸⁸ These plans can enable various agencies to better coordinate their efforts and prioritize the expenditure of resources.
- **Agricultural development** – North Carolina can also help keep farmland in production by helping farms remain economically viable. The Agricultural Development and Farmland Preservation Trust Fund has supported investments in new agricultural processing facilities and other local infrastructure designed to increase the value of the agricultural products produced in North Carolina.

The long-term objective: After decades of rampant loss of farmland, North Carolina should endeavor to prevent any further net loss of farmland and seek to bring idled agricultural land back into production, ensuring that the state’s rich agricultural legacy will continue to sustain the state and our economy for generations to come.

Progress since 2005: North Carolina has taken key steps toward farmland preservation since 2005. The number of counties with voluntary agricultural districts has increased from 42 to 81.⁸⁹ As of November 2010, more than 6,300 farms, accounting for more than 510,000 acres, had been enrolled in a VAD.⁹⁰ Additional counties have completed Farmland Preservation Plans, and the General Assembly has taken steps to reduce development pressure on farmers by preventing involuntary annexation of working farmland by municipalities.

Progress compared with 2005 goal: Approximately 36,800 acres of farmland have been protected since 2005 via land purchases and easements. This figure is likely a conservative estimate – it excludes many acres of farmland protected by North Carolina land trusts for which geographic data were not available and land protected under irrevocable term conservation agreements through the EVAD program. Lands enrolled in EVADs can be considered to be protected from development for 10 years.

North Carolina has made significant progress in protecting agricultural land since 2005, but the state still has a long way to go to secure the future of its agricultural land.

Goal for 2012-2017: North Carolina should endeavor to retain its existing agricultural land for the next five years and return idle agricultural land to production, with the goal of protecting enough land to satisfy the growing demand for local food and creating opportunities for a new generation of farmers to obtain land on which to farm.

Specifically, the state should set a goal of protecting 50,000 acres of farmland through the purchase and donation of land and conservation easements, while encouraging farmers to enroll their land in EVADs, working to develop ways to return idle land to production, and supporting the development of vibrant local food systems. The state should focus on safeguarding threatened farmland from development, while using land and easement acquisitions strategically to help new farmers access agricultural land. In addition, the state should provide farm transition planning assistance and support agricultural economic development efforts to improve the economic viability of family farms.

Investment proposed: Between 2007 and 2011, the Agricultural Development and Farmland Preservation Trust Fund (ADFPTF) invested approximately \$1,400 per acre of farmland protected. Assuming that 25,000 acres would be protected through ADFPTF grants at the same cost per acre of land (adjusted for inflation) and that an additional 25,000 acres would be protected through the donation of land or conservation easements using the state's Conservation Tax Credit, the 50,000 acre goal could be achieved with state investment of \$51.4 million over five years.⁹¹ In addition to state financial support, additional investments by local governments, land trusts, soil and water conservation districts and landowners would be needed to achieve the goal.

Working Forests

2005 Goal: Protect 25,000 acres of forest land within Forest Legacy Areas.

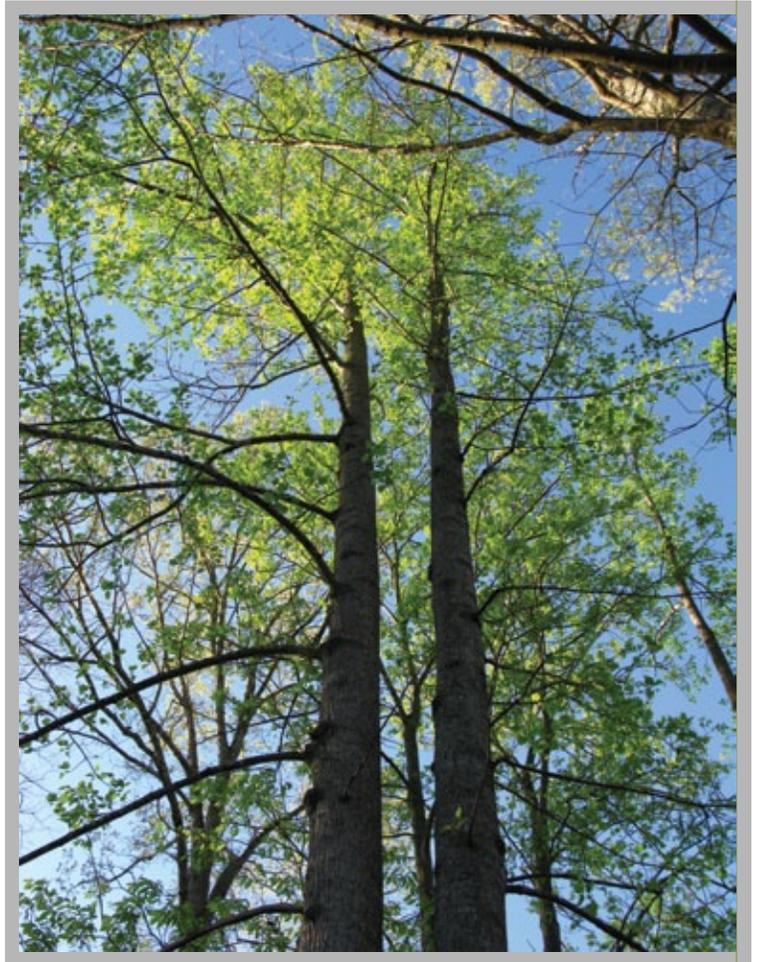
Why working forests matter: North Carolina's working forests sustain a key piece of the state's economy, help to clean the state's air, are a source of natural beauty and wonder, and provide habitat for wildlife. Timberland covers 60 percent of North Carolina and the forest industry contributes more than \$6 billion to the state's economy, employing more than 75,000 people.⁹²

How they are protected: North Carolina's working forests are conserved in a variety of ways. Forest land can be purchased by federal and state governments, non-profit land trusts, or partnerships that involve these and other actors. Protected forest lands are managed as state and national forests, game lands, lands owned by land trusts or other non-profits, or as lands with conservation easements. North Carolina's Forest Legacy program, for example, protects forest land through the acquisition of conservation easements within designated Forest Legacy Areas. Forest Legacy Areas have been designated by the state to focus federal funding and other resources on the protection of lands that are the most ecologically valuable and most threatened by development.

It is also important that forests in private ownership are managed in ways that sustain productive forestry while protecting public values. North Carolina's Forest Stewardship Program is a voluntary program that provides assistance to forest owners seeking to improve management of their lands. More than 420,000 acres of forest land are now covered under forest stewardship plans.⁹³

The long-term objective: North Carolina should seek to preserve its existing forested land within Forest Legacy Areas.

Progress since 2005: North Carolina has protected more than 179,000 acres of forested land since the beginning of 2005. The state has undertaken sophisticated new planning efforts to identify those forests in North Carolina that are in greatest need of protection and develop new strategies for protection. In 2010, the NC Forest Service completed the *North Carolina Forest Assessment*, which developed maps of priority areas for protection as well as a detailed strategy for maintaining healthy working forests in North Carolina.



North Carolina's forests provide habitat for wildlife and sustain a key facet of the state's economy. CREDIT: MARGARET LILLARD, CONSERVATION TRUST FOR NORTH CAROLINA.

Progress compared with 2005 goal: At least 114,000 acres of forest land have been protected since 2005 within the boundaries of the Forest Legacy Areas in effect at the time of publication of *Saving the Goodliest Land*. These figures include forest lands conserved through a variety of state and land trust programs. Since publication of the 2005 report, the NC Forest Service has reconfigured the boundaries of Forest Legacy Areas.

North Carolina far exceeded the 2005 goal of protecting 25,000 acres of forest land within Forest Legacy Areas. Because timberland covers approximately 60 percent of the surface area of North Carolina, there are plenty of forested areas that remain in need of protection.⁹⁴

Goal for 2012-2017: To continue the momentum toward protection of North Carolina's working forests, the state should endeavor to protect an additional 25,000 acres of forested land within Forest Legacy Areas through conservation easements and other means.

Investment proposed: Assuming that the cost of state investment in conservation easements for working forests is \$2,000 per acre, the 25,000 acre goal could be achieved with a state investment of \$50 million over five years.⁹⁵

Local Parks, Trails and Greenways

2005 Goal: Help local communities implement their local park and trail plans; add 34,000 acres to local parks; and address local needs for trails and park facilities.

Why local parks and trails matter: Local parks are important for healthy communities. Urban forests – including those protected as parks – help moderate temperate extremes, protect wildlife, safeguard water quality, and provide a source of natural beauty amid urban environments. Local parks provide places for residents to exercise to improve health and reduce obesity and other health problems. They are also community gathering places for recreation, relaxation and fun, and they boost local economies through festivals, sports tournaments and other events.

How they are protected: Local parks are acquired and managed by local governments. Historically, local parks in North Carolina obtained much of their funding for land acquisition or construction of new facilities through the federal Land and Water Conservation Fund (LWCF), established in 1964 to create parks and protect open spaces. However, since 2005, LWCF money has gone almost exclusively to state parks, leaving local parks to rely on other sources for funding.⁹⁶

Local governments also receive support for parks and recreation development through the Parks and Recreation Trust Fund (PARTF), established in 1995 and funded through an excise tax on real estate transfers and revenues from the sale of specialty license plates.

The long-term objective: North Carolina should work to provide universal access to high-quality recreational and natural spaces for the state's growing population.

Progress since 2005: Between 2005 and 2010, North Carolina added 4,115 acres to local parks through PARTF-funded projects.⁹⁷ Local governments have added additional park lands using funding from other trust funds, donations of land by private



The Carolina Thread Trail includes greenways and recreational trails that connect residents of 15 counties. Above, residents enjoy the Little Sugar Creek Greenway in Mecklenburg County. CREDIT: CATAWBA LANDS CONSERVANCY.

individuals, or their own resources, but there is no centralized source of information that enables the estimation of the total amount of acreage added to local parks statewide.

Progress compared with 2005 goal: Between 2005 and 2011, North Carolina added 4,115 acres to local parks through PARTF projects. While this is well short of the goal of 34,000 acres set in the 2005 report, the earlier goal was very ambitious.

Goal for 2012-2017: North Carolina should seek to increase the availability of local parks to both to accommodate the state's growing population and to expand recreational opportunity for existing residents. Expanding the acreage of local parks per capita by five percent statewide over the next five years would indicate progress toward this objective. To achieve this target, North Carolina would need to add approximately 14,000 acres of land to its local park systems by 2017, while also investing in new facilities and renovation of existing park facilities. Ideally, North Carolina should work to help local governments develop and implement their park plans.

Conservation Success Stories:

Mountains-to-Sea Trail

The Mountains-to-Sea Trail is a grand, ambitious idea. As envisioned in 1977 by Howard Lee, secretary of the predecessor of today's Department of Environment and Natural Resources, the trail would stretch from Clingmans Dome in the Great Smoky Mountains to Jockey's Ridge on the Outer Banks, weaving through ancient mountains and small Piedmont farms, coastal swamps and colonial towns, changing textile villages and barrier islands. A thousand miles long, connecting 37 counties, three national parks, two national wildlife refuges, three national forests, and seven state parks, the Mountains-to-Sea Trail, when completed, will knit North Carolina together in a brand-new way.⁵

While the idea of the Mountains-to-Sea Trail is grand, the work of building it is painstaking. Of the trail's eventual 1,000-mile length, approximately 530 miles are now open, 300 of which are continuous, mostly along the Blue Ridge Parkway.⁶

Volunteers, non-profit groups, communities and the state government are building the trail one mile at a time by obtaining ownership of or easements on privately owned land and then improving it to accommodate hikers. In many cases, this work is proceeding in cooperation with local governments, resulting in trails

that meet recreation and conservation needs while forwarding the broad vision of the Mountains-to-Sea Trail.

In recent years, new sections of the trail have been opening regularly. For example:

✘ In November 2011, the City of Raleigh opened the Upper Neuse Greenway Trail, a key portion of a trail that will eventually run for 28 miles along the Neuse River. The trail is one of many segments of the Mountains-to-Sea Trail that are being built to serve local conservation and recreation needs, but that will also be part of the larger trail.

✘ In 2010, the state opened a 25-mile segment of the trail in Watauga and Ashe counties on land managed by the National Park Service.

✘ In 2010, a new, one-mile segment of trail opened on the Haw River Trail, which is intended to travel 70 miles from Jordan Lake State Recreation Area to the new Haw River State Park.⁹ The trail is like the new section along the Neuse River in Raleigh and is shared with the Mountains-to-Sea Trail and is part of a larger acquisition of land that provides paddle access to the Haw River as well as other recreational facilities.⁸

Funding from the Division of Parks and Recreation has played an important role in helping new segments of the Mountains-to-Sea Trail to come on-line.

Once a dream, the Mountains-to-Sea Trail is becoming a reality bit by bit. Along the way, the trail is helping to protect important lands, provide new recreational opportunities, and improve the quality of life in North Carolina communities all while bringing closer the eventual vision of an unbroken corridor of natural land open to all North Carolinians.

CREDITED TO CONNORS, A FRIEND OF THE MOUNTAINS-TO-SEA TRAIL

Investment proposed: Based on local land acquisition and land acquisition/park development projects funded since 2005 by the Parks and Recreation Trust Fund, adding 14,000 acres of new local parks and accompanying facilities would cost approximately \$120.9 million in state funds over five years. Additional funds would be supplied by local governments.

State Parks and Trails

2005 Goal: Add 60,000 acres of new state parks, and add new and renovated facilities.

Why state parks and trails matter: North Carolina's state parks and trails provide recreational opportunities for millions of North Carolina residents and visitors, safeguard precious ecosystems, enhance air and water quality, and are an economic mainstay of nearby communities.

How they are protected: State parks are acquired and managed by the Division of Parks and Recreation. Long-distance trails, such as the Mountains-to-Sea Trail, are protected through a combination of land acquisitions and easements for the use of private property. The state of North Carolina also coordinates applications for funding of trails through the federal Recreational Trails Program.

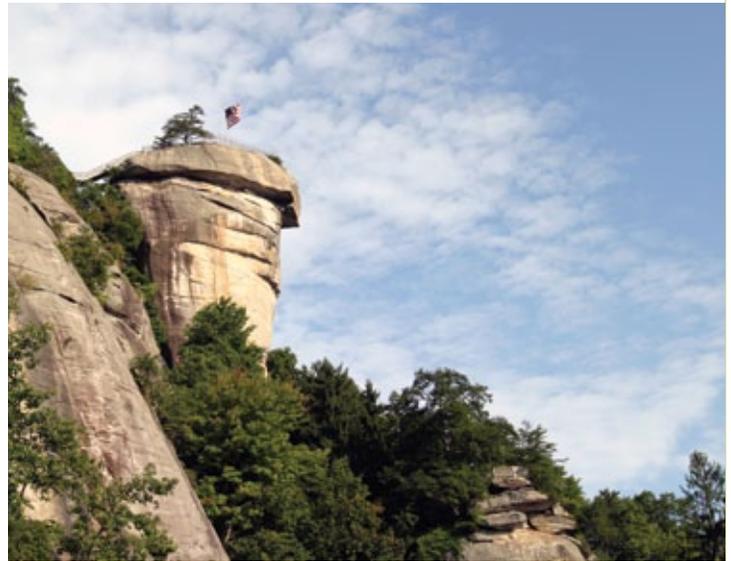
The long-term objective: North Carolina should ensure that it maintains adequate land for outdoor recreation to meet the needs of our growing population, while also using state parks to provide the public with opportunities to experience the state's rich ecological diversity.

In 2002, the North Carolina Division of Parks and Recreation launched the *New Parks for a New Century* process, which identified eight potential new state parks, one potential state recreation area, and 35 potential state natural areas.⁹⁹ Approximately 51,800 acres of potential state park land have been identified as planned, with another 66,900 acres included in study areas for possible inclusion in the state parks system.¹⁰⁰

The addition of new state park land is critical, both to serve the increasing demand from North Carolinians for outdoor recreation opportunities and to accommodate the state's future population growth. North Carolina is already behind the curve as the state ranks 36th for state park acreage per capita and 48th for operating funding per capita.¹⁰¹

Progress since 2005: Between 2005 and 2009, the state added eight new units to the state parks system: three state parks (Carvers Creek, Chimney Rock and Grandfather Mountain); four state natural areas (Mountain Bogs, Sandy Run Savannas, Bear Paw and Yellow Mountain); and one state trail (Deep River).¹⁰² Some of these areas are now open to the public, while others remain under development. In addition to new state park areas, North Carolinians are also the beneficiaries of new and improved facilities at numerous state parks – between 1999 and 2007/08, North Carolina invested more than \$139 million in new and improved park facilities.¹⁰³

North Carolina continued to make progress in the development of its state trails system. Approximately 530 miles of the 1,000-mile planned length of the Mountains-to-Sea Trail, for example, are now open.¹⁰⁴ (See “[Conservation Success Story: Mountains-to-Sea Trail](#),” page 28.)



Chimney Rock State Park in Rutherford County is one of several new parks added to the state park system since 2005, providing North Carolina residents with access to the state's natural treasures. CREDIT: JIM PROCTOR.

Progress compared with 2005 goal: Between 2005 and 2011, North Carolina added more than 33,000 acres to its state parks system, of which 26,400 acres are newly protected. (The remainder were previously protected but were transferred to state ownership during or after 2005.) This figure represents approximately 55 percent of the goal set in 2005.

Goal for 2012-2017: North Carolina should work to expand opportunities for outdoor recreation to accommodate its growing population and to improve conditions for current residents. As with local parks, expanding the amount of land devoted to state parks per capita by five percent would indicate progress toward this objective, and would move North Carolina closer to the middle of the pack nationally among states for state park land per capita. Achieving that target would result in the addition of just over 40,000 acres of land to the state parks system.¹⁰⁵

North Carolina should prioritize types of land that are currently underrepresented in state parks, including fossil sites, caves and sinks, grass and heath balds, mafic glades and barrens, and brownwater floodplains. By adding these lands, North Carolina can enrich the state park experience and ensure that there is public access to all of North Carolina's richly diverse ecosystems.

Finally, North Carolina should also invest resources toward completion of the Mountains-to-Sea Trail and other important long-distance trails. By 2017, the state should endeavor to bring the Mountains-to-Sea Trail to 70 percent completion – adding 170 miles of trail to the current network.

Investment proposed: In its 2008 *North Carolina Outdoor Recreation Plan*, the North Carolina Division of Parks and Recreation estimated the cost of adding new land to existing state park units and completing the *New Parks for a New Century* plan at approximately \$4,000 per acre. Adjusting this figure for inflation, the cost of adding 40,000 acres of new park land would be approximately \$177 million over five years.

Game Lands and Other Natural Areas

2005 Goal: Protect 150,000 acres and complete natural heritage inventories for all North Carolina counties.

Why game lands and other natural areas matter: North Carolina's game lands provide a host of values to the state and its residents. The forests, fields and wetlands protected as game lands by the NC Wildlife Resource Commission serve as critical habitat for wildlife as well as sites for outdoor recreation, including hunting, fishing and canoeing. Game lands also can provide a buffer around military bases.

Significant Natural Heritage Areas are lands that are home to endangered or threatened species or exceptional ecosystems throughout the state. The North Carolina Natural Heritage Program has identified more than 2.9 million acres of land and aquatic habitat with county-wide, regional, statewide or national significance.¹⁰⁶ These lands, in addition to hosting unique and valuable ecosystems, also provide many of the same benefits as other natural lands – water quality protection, flood control, and scenic and recreational value.

How they are protected: Game lands and natural heritage areas are protected through a mix of federal, state and local government programs, as well as work by non-profit organizations. Some key avenues for conservation are:

- **Game lands** – The NC Wildlife Resources Commission owns or manages two million acres as game lands.¹⁰⁷ These areas are made available for hunting, fishing, trapping and other recreational uses. Lands owned by the state or by land trusts may also be managed for long-term conservation purposes.



Game lands and other natural areas provide habitat for wildlife and many opportunities for North Carolinians of all ages to connect with nature. **Location:** Buncombe County. **CREDIT:** MIKE HORAK, THE NATURE CONSERVANCY.

- **Plant Conservation Program** – Administered by the Department of Agriculture and Consumer Services, this program protects lands that contain unique, endangered or threatened plant species.
- **Other conservation programs** – Grants from other conservation trust funds, donations by private landowners, and acquisition of land by local land trusts can also serve the goal of protecting game lands and natural heritage areas.

The Natural Heritage Trust Fund (NHTF) supports the purchase of lands with exceptional natural heritage value, as well as areas of recreational, cultural and historical significance. NHTF funding supports activities by a variety of agencies, including the Wildlife Resources Commission, the Department of Agriculture and Consumer Services, the Department of Environment and Natural Resources and the Department of Cultural Resources. Funding for the protection of natural heritage areas is targeted towards areas of national or state significance.¹⁰⁸

The long-term objective: North Carolina should seek to protect lands that serve important natural functions and are home to our most special plant and animal species while providing new places for North Carolinians to fish, hunt and enjoy the outdoors.

Progress since 2005: Since 2005, North Carolina has added approximately 101,000 acres of game lands under the management of the Wildlife Resources Commission, of which approximately 85,000 acres are newly protected. (The remainder were previously protected but were transferred to state ownership after 2005.) In addition, approximately 2,200 acres have been protected under the Plant Conservation Program, and another 15,700 acres under the North Carolina Natural Heritage Program. In total, the amount of land conserved in these categories through state action exceeds 118,900 acres.

Natural heritage inventories have also been completed for 88 of North Carolina’s 100 counties – up from 69 in 2005 – with seven more in process.¹⁰⁹ These inventories provide a rich source of information about the natural communities most in need of protection in the state.

Progress compared with 2005 goal: The 118,900 acres of game lands and other natural areas protected since 2005 represent 79 percent of the original 150,000-acre goal.

Conservation Success Story:

LITTLE SUGAR CREEK

Charlotte’s Little Sugar Creek was once so foul that drums of orange blossom deodorant were hung from bridges to mask the smell of sewage and trash.¹²¹ Today, Little Sugar Creek is undergoing a remarkable transformation.



Grants from the Clean Water Management Trust Fund have helped transform Little Sugar Creek from a polluted waterway covered by asphalt (left) into a functioning stream with improved water quality, new protections against flooding, and new recreational opportunities for Charlotte residents (right). CREDIT: CHARLOTTE-MECKLENBURG STORM WATER SERVICES.

Over the past decade, Charlotte-Mecklenburg Storm Water Services has restored eight segments of the creek – restoring the stream’s meanders (which slow floodwaters after heavy rains), stabilizing soil, and installing gently sloping stream banks to prevent erosion.¹²² Restoration efforts have also included the purchase of land in the creek’s floodplain, removal of parking lots that once covered the creek, and removal of flood-prone buildings nearby.

The restoration of Little Sugar Creek also presented an opportunity to reconnect Charlotte residents with nature. The Mecklenburg County Parks and Recreation Department has been working to develop lands along the creek into a greenway complete with walking and biking trails, fountains and other amenities. When complete, the greenway will contribute 15 miles of paths to the Carolina Thread Trail, a network of trails that will link residents of 15 counties in North and South Carolina.¹²³

The Clean Water Management Trust Fund was a key contributor to the restoration of Little Sugar Creek, providing matching funds to support several phases of the project. As a result, wildlife and people are returning to a creek once given up for dead – injecting new life and vitality to Charlotte.

Goals for 2012-2017: North Carolina should continue to protect its natural heritage by securing an additional 40,000 acres of state game lands that have already been identified by the staff of the Wildlife Resources Commission as potential additions to the state game lands system. In addition, North Carolina should seek to protect an additional 10,000 acres of land in newly identified game lands or natural heritage areas, for a total goal of 50,000 acres of land.

Investment proposed: Based on estimates from the Wildlife Resources Commission, protecting 40,000 acres of game lands at a cost-per-acre of \$1,872 could be achieved with an investment of \$74.9 million. Assuming the same cost for protecting other natural lands, the cost of protecting 50,000 acres of these lands would be \$93.6 million over five years.

Land Visible From Scenic Highways

2005 Goal: Conserve 50,000 acres of land visible from and adjacent to the Blue Ridge Parkway and other designated scenic highways.

Why land along scenic highways matters: The Blue Ridge Parkway and other scenic highways entice millions of visitors each year with spectacular mountain views and colorful vegetation. The parkway is a cornerstone of the tourism economy of western North Carolina – a recent National Park Service study found that the Blue Ridge Parkway in North Carolina and Virginia attracted 14.5 million visitors in 2010 who spent nearly \$300 million and helped sustain more than 4,000 jobs.¹¹⁰ The Blue Ridge Parkway provides a unique recreational experience, with dazzling views relatively unspoiled by billboards and other evidence of human development. The parkway also serves as a gateway to historic sites and recreational opportunities such as hiking, fishing or swimming. Natural lands along the parkway also safeguard water quality and biodiversity.

While the Blue Ridge Parkway is by far the most heralded scenic highway in North Carolina, the state has designated 54 Scenic Byways, which link together important ecological, historic or cultural assets of each region.¹¹¹ Preservation of land along these byways can ensure that they retain their scenic character and continue to enthrall North Carolinians and visitors to our state.

How land visible from scenic highways is protected: Land immediately adjacent to the Blue Ridge Parkway is owned by the National Park Service, but the parkway's right of way averages only 800 feet wide for most of the Parkway's 469 miles in Virginia and North Carolina.¹¹² The National Park Service seeks to expand this protection to two miles on either side of the road, with the option to conserve larger tracts of land contiguous with the current Parkway boundary. (Current law limits Park Service holdings to land adjacent to the Parkway boundary—which in some places extends for several miles beyond the main road.) Beyond the Park Service, local and state governments, working with land trusts, have stepped in to protect key tracts of land that are ecologically, culturally or scenically valuable.

The long-term objective: Protect all remaining land of scenic, ecological and cultural importance along the Blue Ridge Parkway and plan for the protection of important lands along other Scenic Byways.



The Blue Ridge Parkway draws millions of visitors each year with its stunning views and ample nearby recreation opportunities. Land conservation helps ensure that a trip along the parkway remains a memorable experience for today's and tomorrow's travelers. CREDIT: RICHARD BROADWELL, CONSERVATION TRUST FOR NORTH CAROLINA.

Progress since 2005: Since 2005, public, private and non-profit efforts have protected 13,584 acres of land near the Blue Ridge Parkway.¹¹³ Land acquisitions such as the purchase of the Rose Creek tract (see page 20) have helped to safeguard the Blue Ridge region's impeccable ecological, cultural and recreational resources, ensuring that they will be there to entice and satisfy future generations of visitors.

Land conservation groups have protected additional land along North Carolina's Scenic Byways, but those amounts to date are reflected in the totals for protection of farmland, forest land and other types of land elsewhere in this report.

Progress compared with 2005 goal: The 2005 *Saving the Goodliest Land* report set a goal of protecting 50,000 acres of land along the Blue Ridge Parkway and other scenic highways. The 13,584 acres of land protected along the Blue Ridge Parkway accounts for 27 percent of that goal.

Goal for 2012-2017: North Carolina should seek to protect an additional 20,000 acres of land along the Blue Ridge Parkway and other Scenic Byways over the next five years.

Investment proposed: Assuming that land along the Blue Ridge Parkway and other scenic byways can be acquired or protected by conservation easements for an average of \$2,500 per acre, protecting an additional 20,000 acres would require \$50 million in investment.

REALIZING THE VISION: A PLAN FOR ACHIEVING THE FIVE-YEAR GOALS

North Carolina is at an important crossroads. With a growing population and the potential for economic rebound, the state needs to take action to ensure that we protect our most precious natural lands and working landscapes for the future.

It is also a moment of great promise and potential – North Carolinians overwhelmingly embrace the vision of a state that provides more opportunities for outdoor recreation, more access to locally grown food, cleaner water and air, and all the other benefits that land conservation can provide. Countless citizens across the state have engaged in efforts to protect lands that are important to them – whether by opening their wallets, donating land, or clearing brush from a hiking trail – while non-profits and state agencies have spent much of the last decade evaluating North Carolina’s natural land and developing smart strategies for conservation.

Now is the time for North Carolina to move boldly toward a vision of long-term protection for places that matter – and to commit the necessary resources to get there.

Among the steps the state must take are the following:

Investing the necessary resources – Conservation funding has taken a severe hit in the recent economic downturn. Economics research increasingly tells us that conservation funding is not a frill or a luxury to be set aside when times are tight – rather, it is a powerful economic stimulant that employs people now, saves taxpayers money over time, and is a key foundation of a strategy to draw businesses and talented individuals to North Carolina.

The land protection goals outlined in the previous section could be achieved with an investment of \$812 million by the state over five years. This level of funding is consistent with the rate of funding for conservation activity that prevailed during the mid-2000s. By investing these resources, the state of North Carolina would unlock hundreds of millions of dollars in matching grants and donations from individuals, local governments, the federal government, land trusts and other non-profit organizations.

The land conservation goals recommended here should not be seen as representing North Carolina’s entire conservation activity over the next five years, since many important and threatened types of land, from historical sites to coastal lands, are not covered in this report. But achieving these important goals would put North Carolina in position to regain momentum in protecting the state’s most valuable natural lands and working landscapes, and lay a solid foundation for the state’s future economic prosperity and quality of life.

Establishing (and respecting) dedicated sources of funding – Dedicated sources of funding are a critical component of successful land conservation programs. With predictable sources of funding, state agencies, local governments and non-profit groups can take the long view – establishing sensible priorities, negotiating for better deals on land, and mapping out multi-year plans for the achievement of ambitious conservation goals.



Land conservation can ensure that North Carolina leaves a legacy of clean air, clean water and natural beauty to future generations, while sustaining a prosperous economy today. **Location:** Pisgah National Forest.

CREDIT: TIM HOLCOMB.

North Carolina's current sources of conservation funding are anything but secure. The Clean Water Management Trust Fund and the Agricultural Development and Farmland Preservation Trust Fund are funded through legislative appropriations, while other trust funds – such as the Natural Heritage and Parks and Recreation Trust Funds – have had “dedicated” sources of funding diverted from their intended uses during the recent economic crisis. North Carolina must put its conservation programs on a solid financial footing by identifying dedicated sources of funding for all of the conservation trust funds, and ensuring that dedicated funding is not diverted to other uses.

Maintaining and enhancing tax incentives – North Carolina was the first state to establish a tax credit program for land and easement donations. Since its inception in 1983, the NC Conservation Tax Credit has been used to protect nearly 200,000 acres of valuable conservation land and leveraged nearly \$1 billion in donated land and easement value. Landowners may recover up to 25 percent of the donated value, giving the state a minimum leverage of one dollar in tax revenue lost for every three dollars donated. From 2004-2009, the tax credit program leveraged six dollars in donated value for every dollar in credit granted. Many landowners have used the tax credit in conjunction with funding from one of the state's four conservation trust funds to protect their land permanently for conservation purposes. This has helped the state stretch its acquisition dollars further as it has not had to pay the full purchase price for these properties.

It is critical that the state maintain and enhance the conservation tax credit program, particularly in times of limited funding. The conservation tax credit has not been increased in more than 10 years and is not keeping pace with inflation. Unlike neighboring states of Virginia, South Carolina and Georgia, North Carolina's conservation tax credit program is not transferrable, resulting in lower-income landowners not being able to fully utilize the available tax credit. Making the conservation tax credit transferrable would allow lower-income landowners to more fully utilize the credit by selling the credits they have earned on the open market.

Add to the knowledge base – North Carolina has taken tremendous strides in the last decade toward gaining a fuller understanding of our land conservation needs through detailed assessments of forest lands, agricultural lands, wildlife and natural heritage resources, and parks and recreation needs. These assessments have often led to the development of detailed action plans. Now is the time to use that knowledge and put those plans into action, but there are also important gaps in planning that remain. The state should provide resources to help complete farmland preservation plans, natural heritage inventories and local parks and recreation needs assessments where they have not yet been completed or are out of date. In addition, the state should invest in efforts such as One North Carolina Naturally that can coordinate and prioritize conservation work across many types of land and the many types of organizations that engage in land conservation work, while monitoring progress toward achievement of the state's conservation goals.

TABLE 2. Evaluation of 2005 Five-Year Goals and 2012-2017 Conservation Goals

Type of Land	Previous Five-Year Goal	Achieved, 2005-11	Five-Year Goal, 2012-17	Investment Proposed (in millions)
Rivers, Wetlands and Other Critical Source Waters	6,000 miles of stream banks and floodplains	1,733 stream-miles of buffers protected through the Clean Water Management Trust Fund	1,750 stream-miles of buffers/greenways, amid 200,000 acres of protected wetlands and watershed land	\$269.3
Working Farms	50,000 acres of productive farmland	36,800 acres of farmland protected	50,000 acres of productive farmland	\$51.4
Working Forests	25,000 acres within Forest Legacy Areas	114,000 acres protected within Forest Legacy Areas	25,000 additional acres within Forest Legacy Areas	\$50.0
Local Parks and Trails	34,000 acres and needed trail and park facilities	4,115 acres protected through the Parks and Recreation Trust Fund	14,000 acres	\$120.9
State Parks and Trails	60,000 acres and needed trail and park facilities	33,300 acres of new state parks	40,000 acres, plus completion of 700 miles of the 1,000-mile Mountains-to-Sea Trail	\$177.0
Game Lands and Other Natural Areas	150,000 acres	118,900 acres of Game Lands and lands in the Natural Heritage Program and Plant Conservation Program	50,000 acres	\$93.6
Land Visible from Scenic Highways	50,000 acres along the Blue Ridge Parkway and other scenic highways.	13,584 acres of land near the Blue Ridge Parkway	20,000 acres along the Blue Ridge Parkway and state Scenic Byways	\$50.0
Total				\$812.2

SOURCES AND METHODOLOGY

In this report, we calculate the amount of land protected in North Carolina since the beginning of 2005 and compare those figures to the goals set out in the 2005 *Land for Tomorrow Saving the Goodliest Land* report. To ascertain North Carolina's progress toward the goals articulated in 2005, we assembled roughly two dozen sets of data on land conservation activity from a variety of sources in local, state and federal government, and in the non-profit sector.

Users of this report should be aware of several things:

- Because many conservation projects receive funding from multiple sources (and are represented in multiple data sets), there is great potential for double-counting among lands claimed as protected by various non-profit groups and government agencies. The procedures used to minimize double-counting are described in the sections that follow.
- The area of lands reported as protected here is very likely to differ from the acreage reported by other sources. Among the reasons for potential differences among these sources are: 1) differing definitions of **when** a land is considered "protected" (e.g., a state program may count an acre as protected when a proposal for protection is funded, whereas another analyst might count it as protected only once the real estate transfer has taken place); 2) differing sources for estimating **how much** acreage has been protected (e.g., the acreage as listed on a property deed as opposed the acreage calculated by GIS software); 3) differing understandings of **who** is responsible for protecting a given tract of land (e.g., a tract protected via a grant from the Clean Water Management Trust Fund that is acquired by a land trust and subsequently transferred to a state government agency may legitimately be claimed by all three entities).
- In addition, definitions of "protected" lands vary. The Million Acres Initiative, for example, accounted only for lands permanently protected. In this paper, we take a broader view, also including lands protected under term conservation easements.

Approach to Evaluating Acres Protected and Attainment of Goals

The data in this report are based on two separate but related sets of calculations.

Tabular analysis: The first is the calculation of the total amount of land protected in North Carolina, annually and in total, since 2005. We based this figure on acres reported as having been protected by local land trusts (obtained in tabular form from the Conservation Trust for North Carolina) and The Nature Conservancy since 2005, combined with an estimate of land protected through state efforts not involving these organizations, derived from an analysis of geospatial data (with two exceptions described below). This figure is unlikely to include significant double-counting of land or to include lands that transferred ownership after 2005 but were already in a protected state. However, because this method relies predominantly on data reported in tabular form – rather than geospatial data – it was inadequate for providing more detailed estimates related to the types of lands protected since 2005.

Two aspects of land conservation that include state involvement, but for which GIS data were not available, were local grants made by the Parks and Recreation Trust Fund and farmland protection activities undertaken with grants from the Agricultural Development and Farmland Preservation Trust Fund. Lists of recipients of these grants were obtained from the Division of Parks and Recreation and the Department of Agriculture and Consumer Services, respectively, and the acreage of land protected through these programs was added to the tally of land arrived at as described in the previous paragraph. Projects in which land trusts or The Nature Conservancy were participating parties were excluded from the tally to avoid double-counting.

The authors also sought and received data on federal government participation in conservation through the USDA Farm and Ranch Lands Protection Program (FRPP) and Wetlands Reserve Program. For the Farm and Ranch Land Protection Program, we subtracted the acreage of land protected by the Agricultural Development and Farmland Preservation Trust Fund with

funding from FRPP from the total acreage of land reported as protected by FRPP and added this figure to the final tally of lands protected.¹²⁴ Lands protected through the Wetlands Reserve Program were excluded from the final tally of lands protected because of the potential for double counting.

Geospatial analysis: As noted above, the tabular data analysis was insufficient for determining the characteristics of land protected through conservation efforts since 2005 – information that was necessary to determine whether several of the specific conservation goals had been met. To address this problem, we assembled a broad array of geospatial data indicating land conservation activity in North Carolina since 2005. Because geospatial data were unavailable or incomplete for many land purchases, this method provides an incomplete picture of land conservation. However, this method also likely includes some land conservation activity that should not be included – specifically lands obtained by non-profits prior to 2005 and subsequently transferred to state ownership. While diligent efforts were made to eliminate these transfers where the data existed to do so, in many cases it was simply impossible to identify these transfers given the available data.

Data Sources

State Property Office

Data on land acquisition and easement acquisition by state government agencies were obtained from the State Property Office Facility Information System database using the advanced search function at www.ncspo.com/fis/dbAdvancedSearch.aspx on 15 February 2012. The State Property Office database is revised daily. Information on land acquisitions was downloaded for lands obtained by the Department of Environment and Natural Resources, Department of Agriculture and Consumer Services and Department of Cultural Resources. Records flagged as “suspended” or “inactive” were removed from the data set.

Properties on which deeds were recorded on or after 1 January 2005 were then matched with geospatial data on the location of state-owned properties and conservation easements, provided directly by the State Property Office. These geospatial data files were updated through 5 March 2012 for state-owned properties and 12 March 2012 for conservation easements. The match was performed based on the State Property Office file number for each tract.

For the tabular analysis, we manually removed records reported as having been conveyed to or by The Nature Conservancy (TNC) or by local North Carolina land trusts whose conservation activities were reported by the Conservation Trust for North Carolina (CTNC). We then used GIS software to eliminate overlapping tracts of land listed in both the state ownership and conservation easement datasets, and then to calculate the acreage of the tracts identified as having been protected by state action since 2005.

For the geospatial analysis, we manually removed records for properties indicated as having been obtained by The Nature Conservancy prior to 1 January 2005 and subsequently transferred to state ownership (representing approximately 23,000 acres of land) based on information provided by TNC. However, no data were available that would have enabled us to exclude lands acquired by land trusts or other organizations and subsequently transferred to state ownership. As a result, the geospatial analysis likely includes some tracts of land in state ownership that were protected prior to 2005.

Conservation Tax Credit Properties

Geospatial information on lands donated to state and local governments and non-profit organizations whose owners received conservation tax credits were obtained from the NC OneMap Server at data.nconemap.com/geoportal/catalog/search/resource/details.page?uuid={D7D7ED3B-EA5E-4E77-B582-3EF2E8A395D2} on 7 February 2012. This data layer was updated through August 2011.

Properties donated in 2005 and subsequent years were identified and selected from the dataset.

For the tabular analysis, all transactions involving The Nature Conservancy and North Carolina local land trusts whose activity was reported by CTNC were removed from the dataset to avoid double-counting. Finally, all conservation tax credit properties shown as overlapping state-owned land or conservation easements in GIS software were also excluded from the tally to avoid double-counting.

Clean Water Management Trust Fund

Geospatial information for lands acquired through grants from the Clean Water Management Trust Fund (CWMTF) was obtained directly from CWMTF and integrated into the dataset using procedures similar to those listed above, with records selected for applications filed on or after 2005. For the tabular analysis, records were excluded if the recipient was TNC or a local land trust reporting activity through CTNC, or if the tract overlapped with land protected through other means as determined through the use of GIS analysis.

Non-Profit Organizations

For the tabular analysis, we relied on data summarizing land conservation activities undertaken since 2005 by local North Carolina land trusts and TNC. Additional details on land protected by these organizations can be found in the Appendix, as can information regarding land protected by other non-profit organizations.

For the geospatial analysis, we relied on geospatial data supplied by CTNC and TNC. These data were incomplete – in the case of local North Carolina land trusts, we received usable data from 13 of 24 land trusts,¹²⁵ while the records supplied by TNC were complete for only approximately 30,000 of the 100,000 acres of land protected by the organization during the 2005-11 period. It is important to note that much of the land for which geospatial data were not available from the land trusts and TNC will still be represented in the geospatial analysis if it was transferred to state ownership at some time during the period, received state funding, or was protected with the use of the conservation tax credit program.

Other Sources

The tabular analysis includes several additional data sources.

- A list of tracts protected through the Agricultural Development and Farmland Protection Trust through the end of 2011 was obtained from Wes Gray, NC Department of Agriculture and Consumer Services. Easements listed as being held by NC local land trusts were excluded from the total tally of land protected since 2005.
- Lands protected through Parks and Recreation Trust Fund matching grants were obtained from Bayard Alcorn, NC Division of Parks and Recreation, personal communication, 15 February 2012.
- Information on lands protected through the Farm and Ranch Land Protection Program (FRPP) was obtained from the USDA's Natural Resource Conservation Service.¹²⁶ Information on FRPP lands that also received grants from the Agricultural Development and Farmland Preservation Trust Fund was obtained from Wes Gray of the NC Department of Agriculture and Consumer Services.

Land Conservation Activities Not Included

The entities described above are responsible for the vast majority of land conservation activity in North Carolina, but there are many other actors who take part in land conservation, including federal agencies, soil and water conservation districts, local governments and non-profit organizations other than those referenced above. To the extent that state programs (including the conservation tax credit and conservation trust funds) have assisted in their land conservation efforts, the properties that they have helped to protect will be included in this analysis. However, efforts that these or other organizations have taken without state financial support are unlikely to be included.

Complete estimates of land protected by the Trust for Public Land and The Conservation Fund were obtained from these organizations and can be found in the Appendix.

Land Cover Data

Information on land cover was obtained from the 2006 National Land Cover Database (NLCD 2006), obtained from the Multi-Resolution Land Characteristics Consortium, downloaded on 14 February 2012. This raster dataset provides data on land cover at 30-meter resolution.

Ascertaining Fulfillment of 2005 Goals

The method of determining fulfillment of the 2005 goals is described in the text of the report, unless described below.

Working Farms

Fulfillment of the goal of protecting 50,000 acres of productive farmland was based on geospatial analysis, supplemented by data from other sources. Data from the 2006 NLCD dataset were extracted based on the boundaries of lands protected since 2005 as identified in the geospatial analysis. Areas in the land cover categories “pastureland and hay” and “cultivated crops,” as defined in the NLCD 2006 dataset, were considered protected farmland and formed the basis of the farmland protection estimate. To this figure were added the 3,466 acres of land protected under the Agricultural Development and Farmland Preservation Trust Fund (ADFPTF) through entities other than land trusts (mostly local governments and soil & water conservation districts), and 7,040 acres of land protected through the USDA Farm and Ranch Lands Protection Program that did not overlap with tracts protected with funding from ADFPTF.

Working Forests

Fulfillment of the goal for working forests – protection of 25,000 acres of forest land in Forest Legacy Areas – was ascertained as follows: Tracts protected since 2005 were identified based on the geospatial datasets described above. Forest coverage in these tracts was determined using the NLCD 2006 dataset. The boundaries of Forest Legacy Areas were supplied by the North Carolina Forest Service on 12 March 2012. The Forest Service revised the boundaries of the state’s Forest Legacy Areas during the production of the *North Carolina Forest Assessment* in 2009 – but because these boundaries were not the ones in place at the time of the 2005 *Saving the Goodliest Land* report, the original boundaries of Forest Legacy Areas were used in this analysis.

State Parks

Fulfillment of the goal of adding 60,000 acres of state parks was ascertained by calculating the acreage of lands acquired for the state parks system since 1 January 2005 from the State Property Office database. The size of the tracts added to the state parks system was calculated using GIS software. Note that, of the 33,300 acres of land added to the state parks system since 2005, only 26,400 were newly protected. The remainder were previously protected but were transferred to state ownership after the start of 2005.

Game Lands and Other Natural Areas

Fulfillment of the goal of protecting 150,000 acres of game lands and other natural areas was ascertained by calculating the acreage of lands acquired for state Game Lands, the North Carolina Natural Heritage Program, and Plant Conservation Program since 1 January 2005 from the State Property Office database. The size of the tracts was calculated using GIS software. Note that, of the 118,900 acres of land added since 2005, only 102,700 were newly protected. The remainder were previously protected but were transferred to state ownership after the start of 2005.

Cost Estimates

The source and rationale of the cost estimates for protection of various types of land are described in the relevant sections of the report. For those estimates that are based on historical data for conservation spending during the 2005-11 period, the projected cost of future conservation activity was adjusted for inflation based on the assumption of a 1.9 percent annual inflation rate for the 2011-2017 period, based on the historical rate of increase of the Consumer Price Index (CPI) from 2005-2011 from the U.S. Bureau of Labor Statistics, *Consumer Price Index – All Urban Consumers, U.S. City Average*, downloaded from <ftp://ftp.bls.gov/pub/special.requests/cpi/cpi.txt>, 2 April 2012. The projected CPI for the 2012-2017 period was averaged and compared to the actual CPI for 2005-2011 to arrive at a 10.6 percent inflation adjustment factor for future land purchases compared to recent land purchases.

APPENDIX: ADDITIONAL DETAILS ON CONSERVATION ACTIVITIES SINCE 2005

Land conservation in North Carolina is often the result of partnerships among federal, state and local governments, as well as private individuals and businesses, land trusts and other non-profit organizations. Because many land purchases or conservation easements receive funding from multiple sources, it is rare that a single entity is wholly responsible for bringing a tract of land into conservation.

This section describes in greater detail the efforts of various partners in land conservation. Note that, because multiple entities may take credit for protecting an individual tract of land, the sum of the acreages presented in this section will be greater than the total acreage of land protected in North Carolina since 2005.

State Government

North Carolina state government serves as a direct purchaser of land for conservation, a holder of conservation easements, and a catalyst for conservation activity through the conservation trust funds and the conservation tax credit.

Since 2005, the state of North Carolina has added more than 164,700 acres of land or conservation easements to state ownership, with 141,500 acres of that land newly protected. (See Table A-1.)

TABLE A-1. State Government Land Purchases and Easements, 2005-11¹²⁷

Type of Land	Acres Newly Protected	Acres Added <i>(Including Transfers of Previously Protected Lands)</i>
Game Lands	84,817	101,028
State Parks	26,399	33,327
Natural Heritage Program	15,700	15,700
Ecosystem Enhancement Program	8,094	8,094
State Forests	3,150	3,150
Plant Conservation Program	2,147	2,218
Historic Sites	922	922
Soil & Water Conservation	238	238
Office of Coastal Management	45	45
Other	25	25

State government has also contributed to conservation through the state's four conservation trust funds. The conservation trust funds provide matching grants to non-profits and local governments for conservation efforts (as well as, in the case of the Parks and Recreation Trust Fund and Natural Heritage Trust Fund, funding state land purchases directly).

The three trust funds that make matching grants (Clean Water Management, Parks and Recreation and Agricultural Development and Farmland Preservation), used those grants to leverage an additional 113,000 acres of land conservation. (Lands protected using funding from the Natural Heritage Trust Fund are accounted for in the totals for the state agencies receiving those funds.)

TABLE A-2. Acres Protected through Conservation Trust Fund Matching Grants

Trust Fund	Acres Protected
Clean Water Management Trust Fund	100,570
Agricultural Development and Farmland Preservation Trust Fund	8,254
Parks and Recreation Trust Fund	4,116

The state of North Carolina also assists in land conservation through the state's conservation tax credit, which provides incentives for private landowners to donate land or conservation easements. From the beginning of 2005 through August 2011, the conservation tax credit played a role in the protection of more than 86,000 acres of land.

Land Trusts and Other Non-Profits

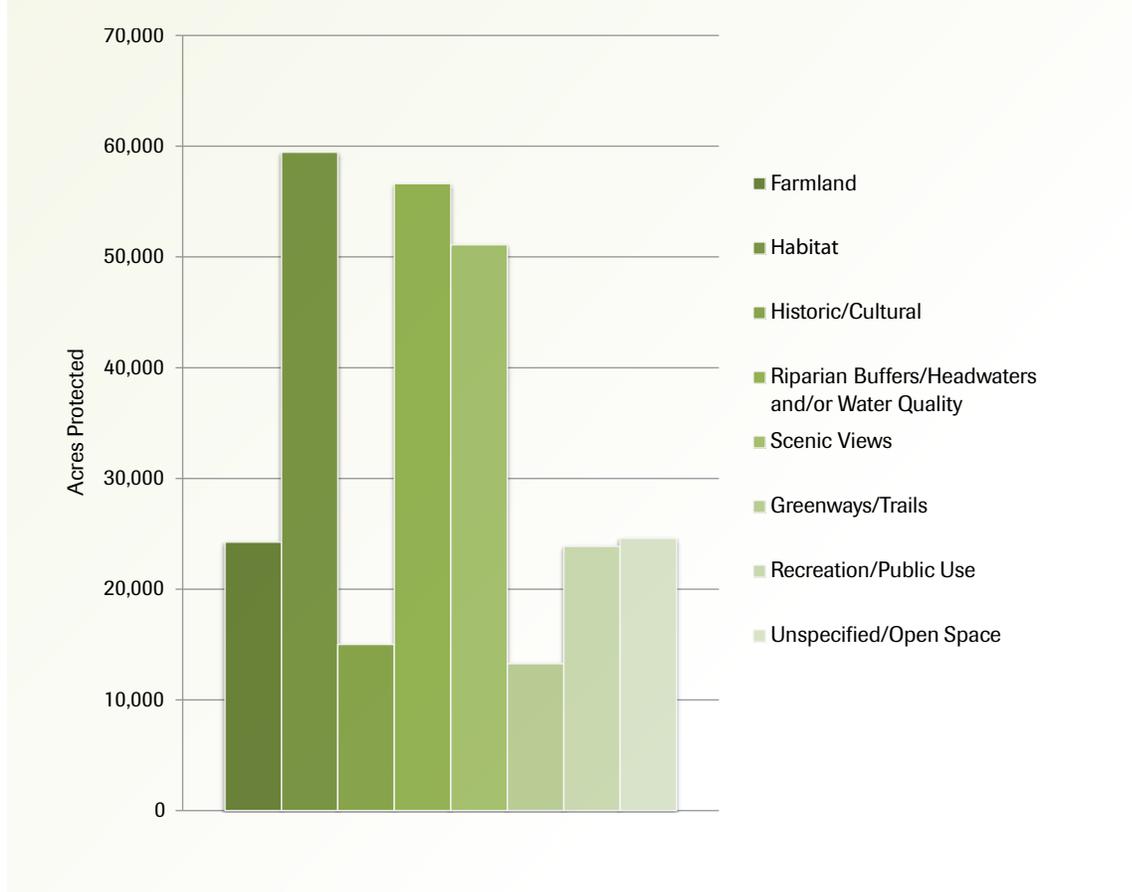
North Carolina's land trusts, as well as other non-profit organizations, are key partners in land conservation, often spearheading conservation efforts, holding conservation easements, and managing tracts of land for public use and enjoyment. There is no comprehensive source of information on non-profit conservation efforts, but since 2005, land trusts and other non-profit organizations report that they were involved in protecting more than 295,000 acres of land in North Carolina (though this figure is likely a slight overestimate given the partnerships that sometimes exist between local and national non-profit land protection organizations). (See Table A-3.)

TABLE A-3. Non-Profit Conservation Activity Since 2005 (partial list)

Organization	Acres Protected
Black Family Land Trust	34
Blue Ridge Conservancy (BRRLT & HCC Merged in 2010)	1,603
Blue Ridge Rural Land Trust (Merged with HCC to Form BRC in 2010)	6,753
Carolina Mountain Land Conservancy	12,165
Catawba Lands Conservancy	4,988
Conservation Trust for North Carolina	11,586
Davidson Lands Conservancy	69
Eno River Association	935
Foothills Conservancy of North Carolina	14,892
High Country Conservancy (Merged with BRRLT in 2010 to form BRC)	2,278
Highlands-Cashiers Land Trust	1,690
Land Trust for the Little Tennessee	7,752
LandTrust for Central NC	11,947
Lumber River Conservancy	1,002
National Committee for the New River	1,771
NC Coastal Land Trust	17,269
NC Rail-Trails	71
Northeast New Hanover Conservancy	53
Pacolet Area Conservancy	3,096
Piedmont Land Conservancy	7,903
Sandhills Area Land Trust	9,305
Smith Island Land Trust	117
Southern Appalachian Highlands Conservancy	24,565
Tar River Land Conservancy	13,717
The Conservation Fund	25,259
The Nature Conservancy	100,966
Triangle Greenways Council	497
Triangle Land Conservancy	8,227
Trust for Public Land	5,424
Total (assuming no overlap)	295,932

Non-profit organizations have protected lands with a variety of conservation values. The Conservation Trust for North Carolina (CTNC) supplied information on the conservation values served by the lands protected by CTNC and local North Carolina land trusts between 2008 and 2011 (an acre of land can serve more than one value) .

FIGURE A-1. *Land Protected by NC Local Land Trusts by Conservation Value, 2008-11*



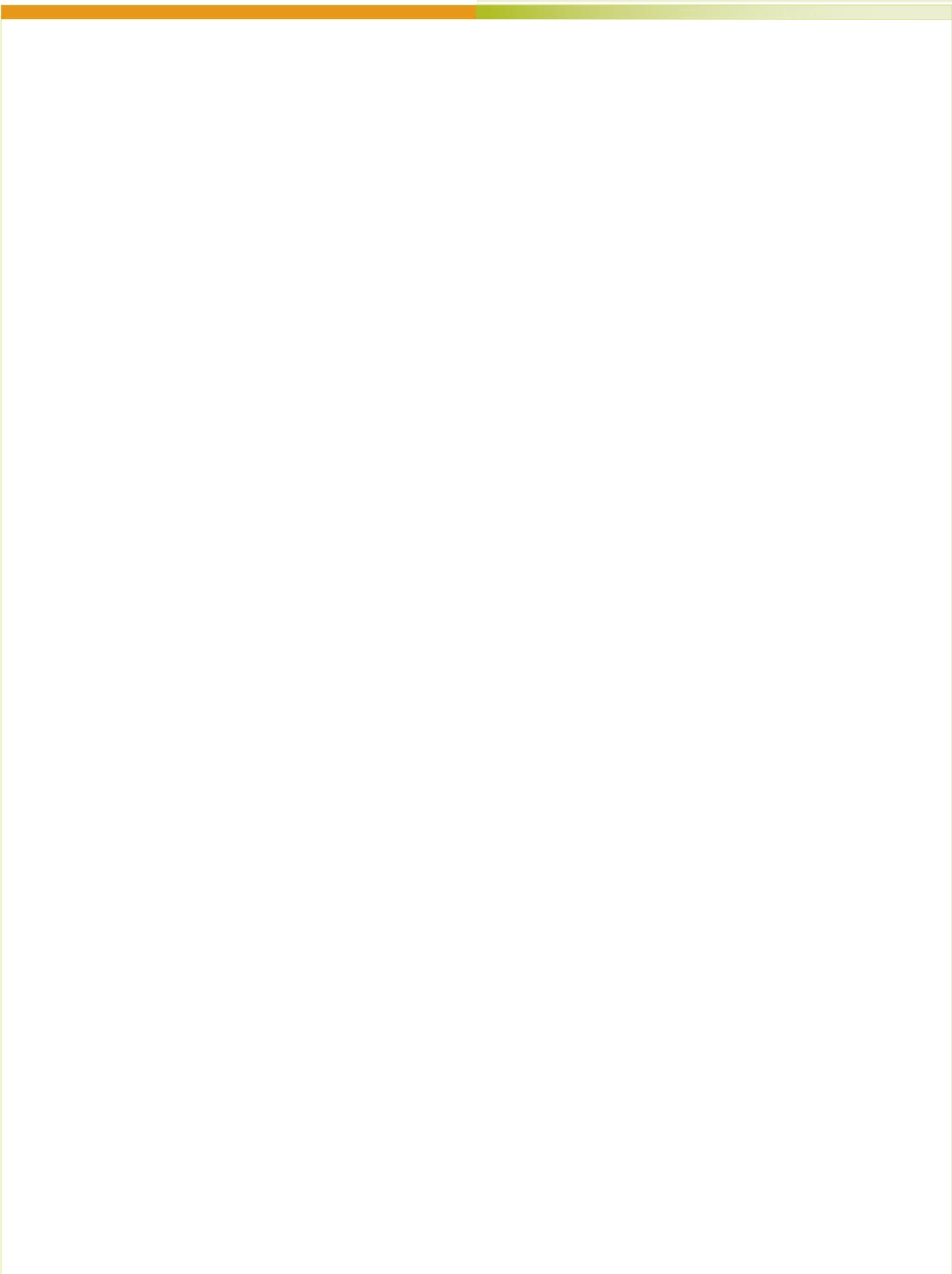
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