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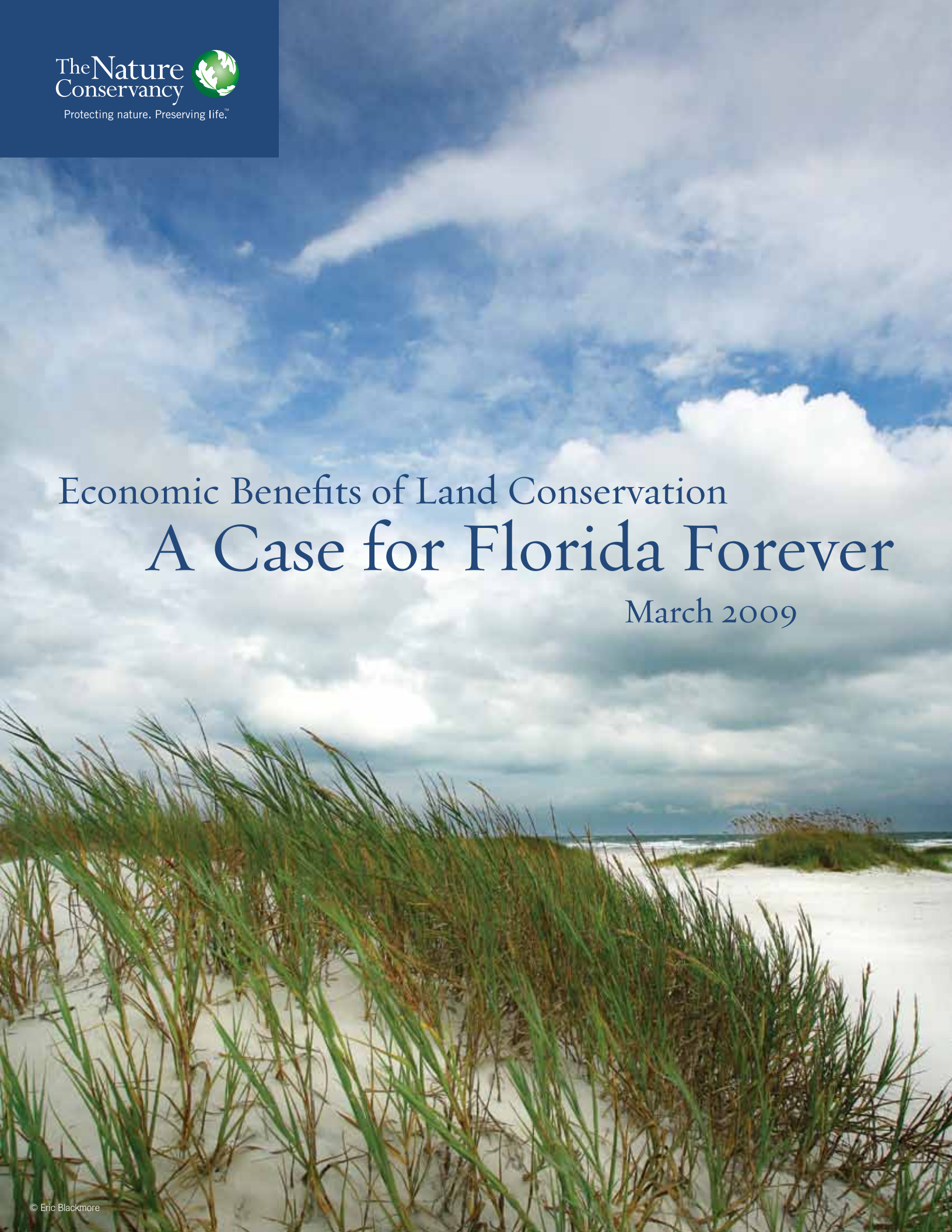
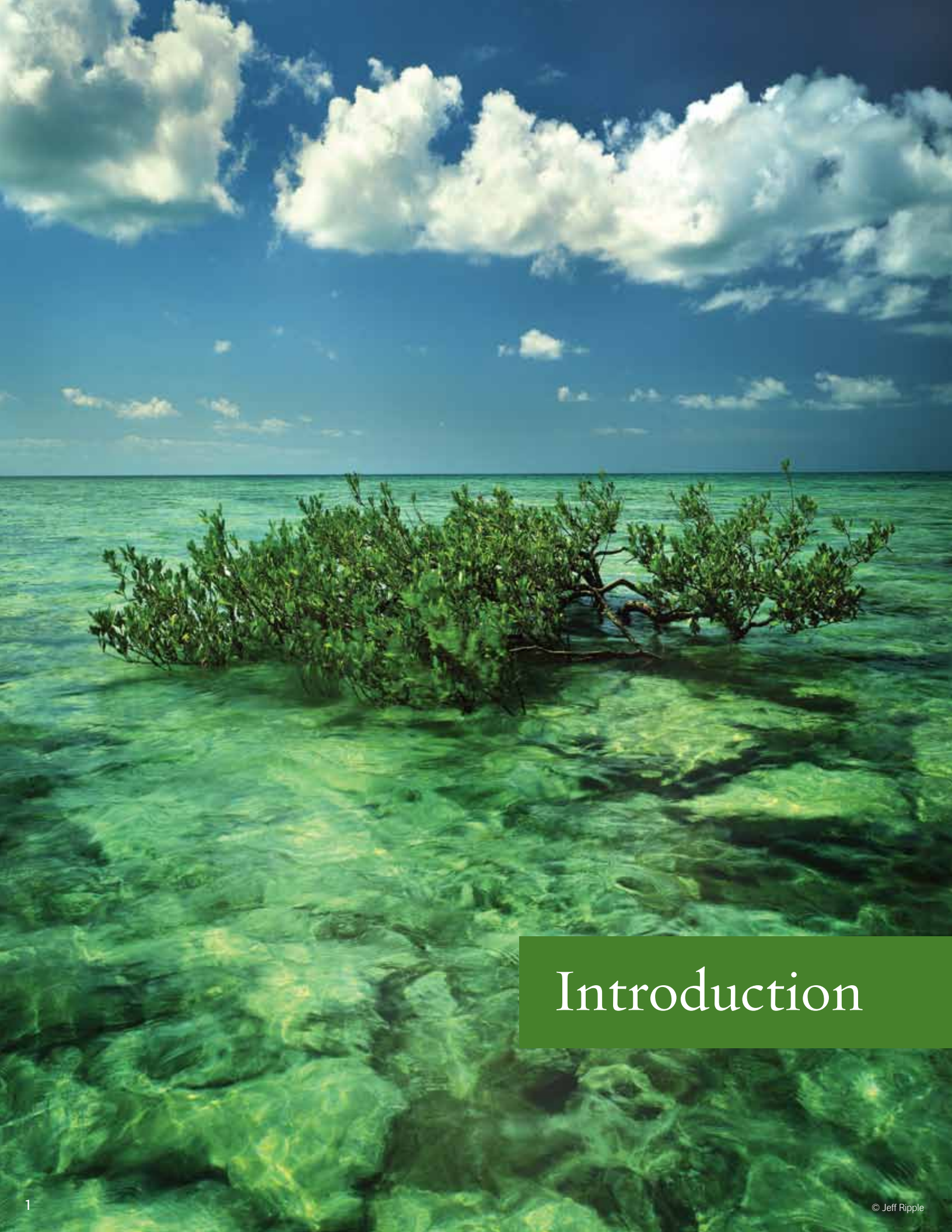
Economic Benefits of Land Conservation
A Case for Florida Forever

March 2009





Introduction

Introduction

Florida's unparalleled beauty and abundant natural resources enhance Floridians' quality of life and provide multiple economic benefits.

The Florida Forever program is the current foundation of Florida's investment in land conservation and environmental and economic sustainability. More than 2 million acres of Florida's best and most ecologically functional lands have been preserved through Florida Forever and its predecessor, Preservation 2000, since 1990.

Florida Forever and the complementary land conservation programs of local, federal and nonprofit partners represent a market-based, nonregulatory approach to protecting special places critical to the environment and quality of life in Florida. The breadth and importance of the economic benefits associated with land and natural resource conservation make a compelling case for Florida Forever and land protection across our state.

The multiple economic benefits that we receive from our state's protected natural resources, however, are often not well understood or appreciated. Economic benefits of land conservation can be classified in terms of:

- **Tourism and Outdoor Recreation**
- **Agriculture**
- **Freshwater Resources**
- **Coastal Counties and Resources**
- **Defense and Conservation**
- **Climate Change Mitigation**
- **Helping Preserve the State's Green Infrastructure**

This remarkable range of economic activity is wholly dependent on protected natural resources and a healthy environment, policies and programs that advance sustainability in Florida, and the long and enduring support of the citizens of Florida.

By recognizing the central role of the environment to our state's economy and by increasing our state's investment in its "green infrastructure," we can ensure that future generations inherit the "life support systems" that make possible Florida's high quality of life and economic prosperity.

A first step in recommitting Florida to its legacy of green investment is to explore and document the range of economic benefits of natural resource conservation. A great deal of recent research on the economy and its direct link to conservation in Florida is compiled here to serve as an introduction to the economics of land conservation in Florida.

Tourism and Outdoor Recreation

Tourism

Florida enjoys a $65 billion[1] annual tourism industry that is inextricably linked to the utilization and enjoyment of our state's natural resources. Florida Forever and its predecessor Preservation 2000 are largely responsible for these protected natural resources that Floridians and visitors enjoy. Tourism is Florida's largest single economic engine, and it can be sustainable provided that we conserve enough of what makes our state special through Florida Forever and other conservation programs across the state. Florida Forever has protected more than 2 million acres of functioning coastal lands, rivers, lakes, wetlands, parks, preserves, historical treasures and more than 80[2] different types of natural communities comprising the state's biodiversity and the unique "Florida experience."

Nature-based activities were enjoyed by 65 percent of Florida tourists in 2007.[3] Of the 80 million people who visited Florida in 2007, many enjoyed the best of what Florida has to offer — its beaches, forests, springs and varied natural areas and native wildlife that define the Florida experience. Ninety-two percent of tourism leaders agree: "The conservation of Florida's natural and historical assets is necessary for the long-term success of my business," according to a University of Miami study.[4]

Based on Fiscal Year 2007/2008 data, **the Florida state park system had an overall direct economic impact of more than $1 billion** on local economies throughout the state.[5] More than $70 million were contributed to general revenues in the form of state sales taxes, and 20,100 jobs were generated as a result of the state parks' operations.[6] Almost 21 million individuals visited 161 state parks, with state parks such as Honeymoon Island north of Tampa/St. Petersburg reporting more than 1 million visitors and coastal Anastasia State Park in northeast Florida reporting 638,000 annual visitors. The state park economic assessment determined that **for every 1,000 people attending a state park, the total direct impact on the local community is more than $43,400.**

Outdoor Recreation

Recreational and associated uses provide substantial revenues to Florida, and Florida's conservation lands support many popular recreational activities like sport fishing, hunting, nature viewing, hiking and horseback riding.[7]

Important measures of the value that Florida's conservation lands add to the state's economy are jobs created, direct and indirect economic impact, and tax revenues generated through the outdoor recreation industry. In a recent analysis of recreational activity in Florida during 2006, economists estimated the **statewide economic impacts to be more than $13 billion** for that year. Fishing and hunting accounted for more than $8 billion and wildlife viewing for more than $5 billion. Direct recreational expenditures on retail sales were estimated to be almost $8 billion, while state and local taxes were estimated at more than $800 million. **Jobs from these activities totaled 137,000.**[8]

A study conducted by Florida Fish and Wildlife Conservation Commission in 2003 to evaluate the economic benefits for 17 Wildlife Management Areas (WMA) found that, for all 17 sites, total direct expenditures ranged between $105 million and $338 million. The WMAs were also estimated to generate nearly $124 million in retail sales, almost 1,200 jobs, about $7.4 million in state sales tax revenue and an additional $21.7 million in wages for that year alone.[9]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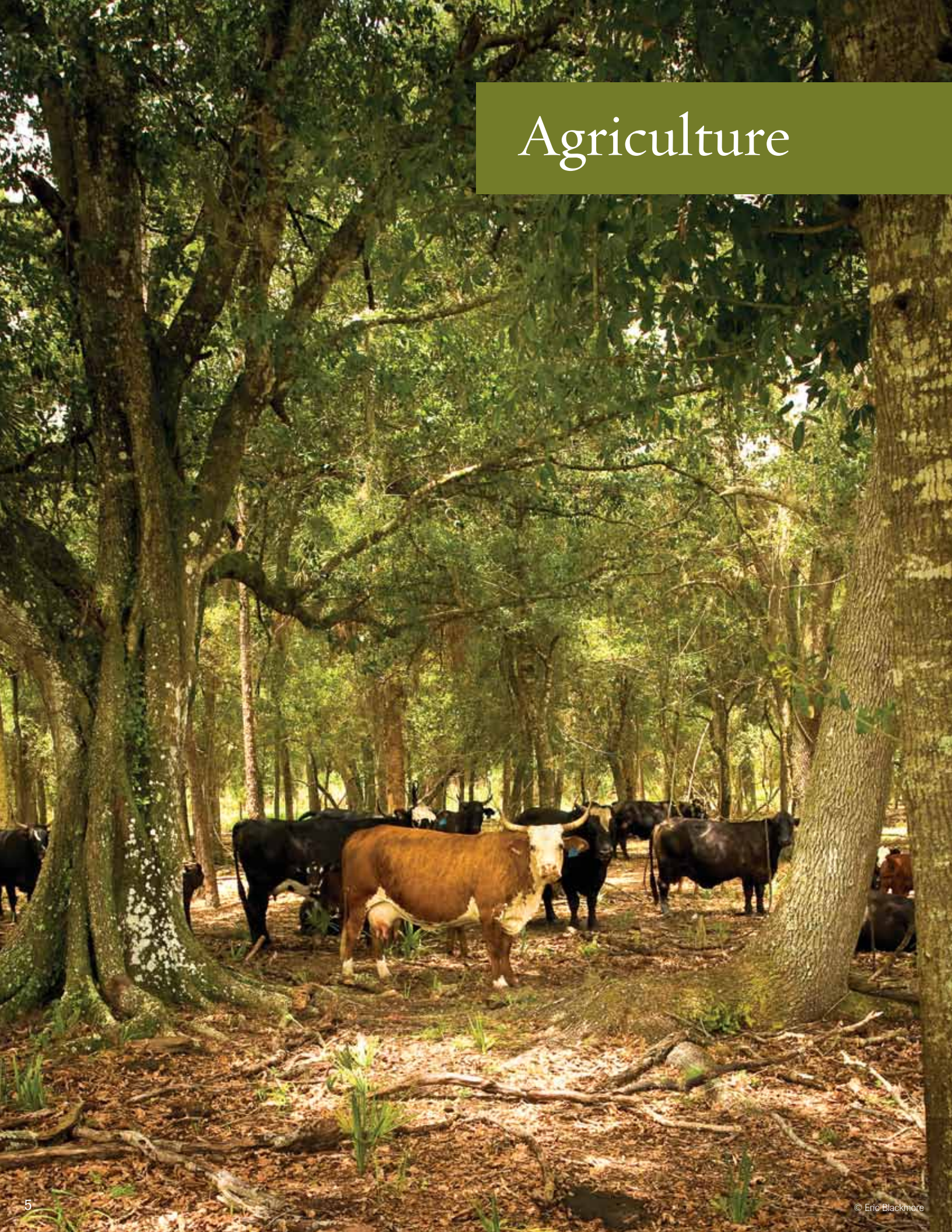
Agriculture



Ranching and Forestry

Agriculture is the second largest economic engine in Florida and a major employer. **In 2006, the state's forest products and cattle ranching industries generated $9.8 billion and supported a minimum of 195,000 jobs.**[10]

There are more than 10 million acres of farmlands and ranchlands in Florida. At the 2006 rate of development, however, the state is estimated — in just 50 years — to have only a small fraction of its agricultural lands still available for producing food for its citizens and for export to other states and countries.[11] Recommendations from a 2007 1000 Friends of Florida report on challenges facing agriculture in our state included embracing the market by identifying multiple layers of value for rural lands, developing strategies for compensating landowners for protecting those values, and expanding and improving public land acquisition programs.[12]

The role of Florida Forever in protecting productive working ranches, farms and forests is significant. For decades, farmers, ranchers and conservationists have used conservation easements to protect farmland and the natural resources associated with those lands.[13] Conservation of species like burrowing owl, crested cara cara, sandhill crane, gopher tortoise, Florida black bear and Florida panther are enhanced on low-intensity agricultural areas. Conservation easements are a "win" for both the private landowners wishing to continue in agriculture and for the public wishing to protect land in a cost-efficient manner. Further, maintenance of lands in forestry has been identified as a key strategy for Florida to maintain carbon storage and reduce carbon emissions incurred by land conversion in Florida.[14]

As a public purchaser of conservation easements, Florida Forever has allowed individual ranchers and farmers, and their rural communities, to remain viable while paying them to preserve some portion of their land's conservation value. Additionally, water management districts have used some of their Florida Forever funding to acquire conservation easements to protect ranchland or acreage where the public interest in land conservation (e.g., water supply protection) did not require that the public own the land outright.

Florida Forever has helped preserve 158,700[15] acres of working agricultural lands and Floridians' rural way of life by allowing for Florida farmers and ranchers to stay in production and at the same time preserve valuable water resources and other natural resources that provide habitat for Florida's wildlife. Several important Florida Forever projects that support agriculture and forestry areas include St. Joe Timberlands, Adams Ranch, Myakka Ranchlands and Bombing Range Ridge.

In 2008, when Florida Forever was reauthorized for 10 years by the Florida Legislature, the program's funding allocation was also revised to increase support for agriculture. An existing but never-funded conservation easement program will now receive $10.5 million annually in Florida Forever funds. Beginning this year, the Rural and Family Lands Protection Program of the Department of Agriculture and Consumer Services will use conservation easements to protect productive Florida agricultural land and to allow individual farmers and ranchers to remain in their traditional livelihoods.

Freshwater Resources

An adequate supply of fresh water is essential to all sectors of Florida's economy. Indeed, potable fresh water is the foundation of Florida's economic prosperity. Whether underground or on the surface, Florida's freshwater resources are an "ecosystem service," a term used for commodities available to individuals and communities that traditionally have not been priced by the market economy.

Groundwater

Nearly 90 percent of Florida's drinking water supply comes from the Floridan aquifer. Underground limestone reservoirs such as the Floridan aquifer were once considered to provide unlimited amounts of water. Yet, within the last 40 years, some springs have dried up or have been severely limited in flow. Protecting the sources of this pure water is a critical challenge for our state.[16]

Florida is unique in having nearly half of our country's first-magnitude springs — **flows of 65 million gallons per day or greater — among the 600 springs that can be found in 39 of 67 counties.** The springs and their spring runs have abundant wildlife; provide critical base flow to rivers and estuaries; and provide unique opportunities for swimming, fishing and other passive nature-based activities.

Freshwater resources are a precious commodity that continues to increase in cost as the state struggles with consumptive water shortages, planned groundwater caps and increased treatment costs. Moratoria on building, adverse impacts to agriculture and reduced outdoor recreation are among the consequences of water shortages. Recommendations from the 2008 Water Congress, sponsored by the Century Commission for a Sustainable Florida, included increased interagency cooperation toward the goals of water conservation, continued acquisition of important aquifer recharge areas and, in general, a long-term vision of how to manage the state's precious freshwater resources sustainably.[17]

The state acquisition of lands in rapidly developing and vulnerable karst areas reduces potential impacts to aquifer recharge and associated groundwater resources. The state has supported springs protection through the purchase of important river corridors, lands that encompass springs, and buffers around springs. More than **53,600 acres[18] of springs and springsheds have been protected through Florida Forever,** including land purchases made by the state's five water management districts.

Surface Waters

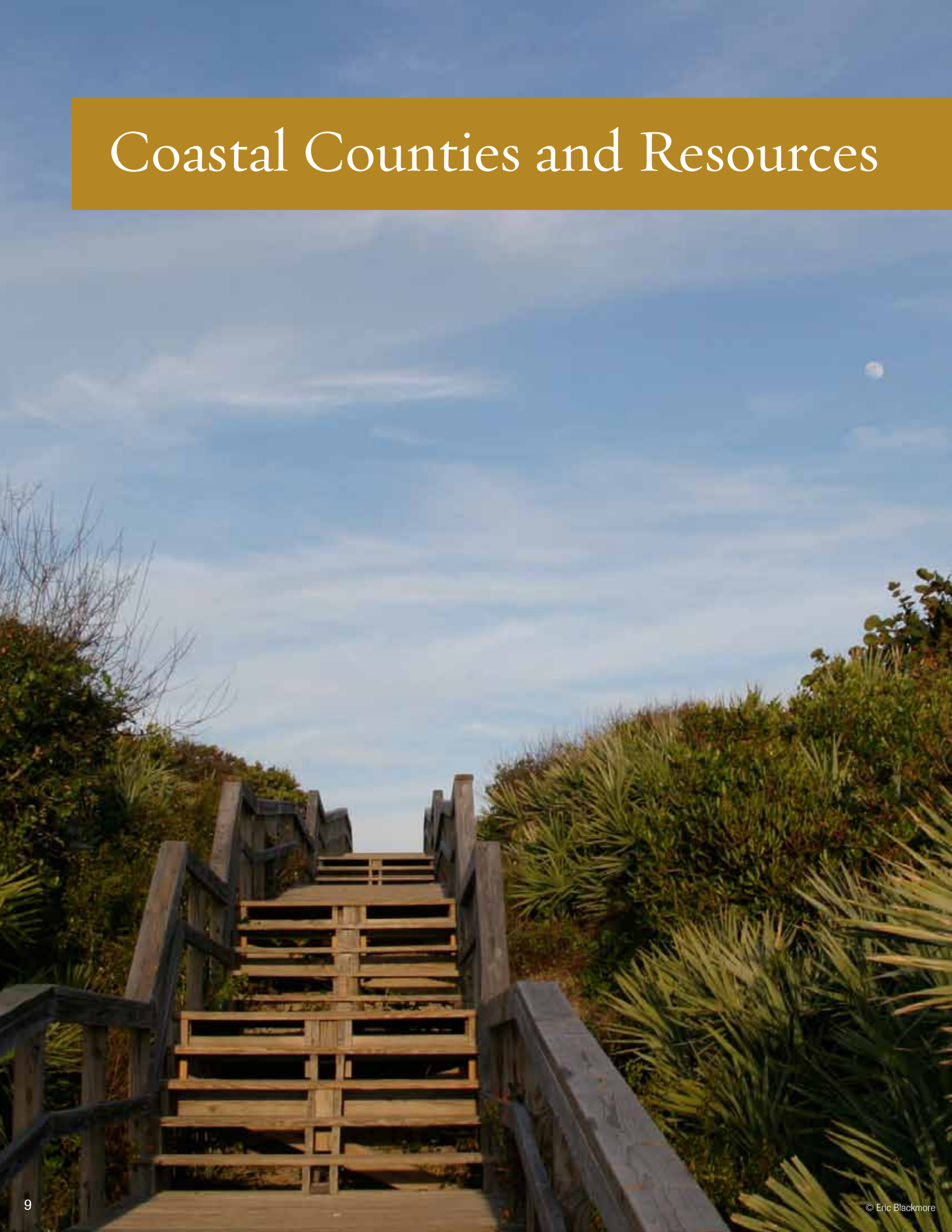
Florida's flowing water ecosystems consist of 3 million acres of freshwater lakes and 12,000 miles of streams and rivers with more than 250 different freshwater fish species.[19] Natural communities, such as cypress swamp, freshwater marsh, wet prairie, natural lake and blackwater streams, blend together to create the classic Florida landscape.

However, Florida's rivers face a high number of ecological threats as more watersheds become urbanized.[20] Conversion of riparian and floodplain areas and increases in impervious surfaces in watersheds degrade water quality and prevent infiltration or downward percolation of rainfall into the ground. Preserving the function and value of surface waters for environmental, economic and recreational benefits requires protecting the lands that contribute to their viability.

Naturally functioning surface waters, with intact headwaters, floodplains and adequate riparian buffers, also provide low-cost natural flood control and protection from storm surges, maintain water quality and salinity of coastal waters, and provide refuge and nursery habitat for freshwater and marine fishes. In 2004, a joint study by American Water Works Association and The Trust for Public Land explored the link between increased forest cover in a watershed and its effect on treatment costs. **Their findings concluded that using forests as barriers to a river system was an effective way to reduce treatment costs.** The cost for water treatment plants using surface water supplies varies depending on forest cover in the source area: the less forest cover, the more expensive the water treatment.[21]

About 630,000[22] acres preserved through Florida Forever contribute to the protection of significant surface waters. This in turn allows aquatic habitats to remain viable, supports endemic fish and bird species, reduces water treatment costs, and supports Florida's popular nature-based activities. Some of the excellent Florida Forever freshwater projects awaiting funding are Florida's First Magnitude Springs, Wekiva-Ocala Greenway, Apalachicola River, Upper St. Marks River Corridor, Corkscrew Regional Ecosystem Watershed, St. Johns River Blueway, Econ-St. Johns Ecosystem and Middle Chipola River.

Coastal Counties and Resources



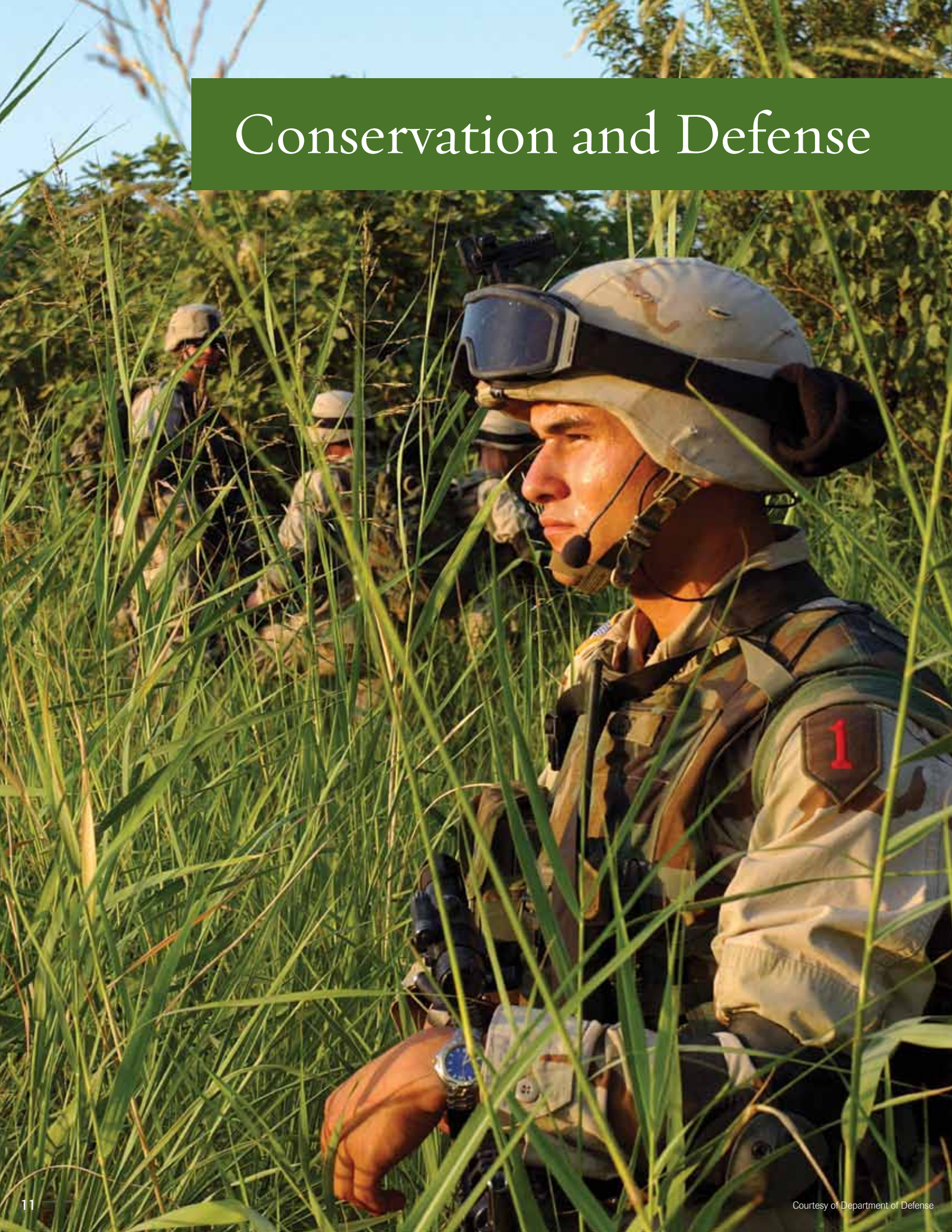
Florida's 1,350 miles of coastal and estuarine areas possess unparalleled biological diversity; provide important ecosystem services, such as mitigating impacts from sea level rise, flooding, and storm surge; and provide immense economic opportunities. These coastal resources provide valuable habitat for species, such as the highly endangered North Atlantic right whale and several sea turtles. Native natural communities, including maritime hammocks and estuarine tidal marshes, attract 80 million visitors to the state annually.

In 2005, **Florida's coastal counties contributed almost $562 billion in direct revenue, 79 percent of Florida's economy,** according to an economic report released by the Florida Oceans and Coastal Council in 2008.[23] In that same report, the tourism and recreation sector created the largest percentage of jobs, wages and economic impact for goods and services for Florida's coastal communities. In terms of recreational activities like boating, fishing or tourist activities related to cruises and coastal lodging, it is imperative for Florida's coastal resources to remain vibrant and healthy.

A 2008 economic study found that coastal wetlands in the U.S. were currently estimated to provide $23.2 billion a year in storm protection services.[24] **Florida's coastal resources were estimated to provide, on average, more than $11 billion a year in storm protection services.** Coastal wetlands can reduce the damaging effects of hurricanes on coastal communities by functioning as valuable, self-maintaining "horizontal levees" for storm protection. They also provide a host of other ecosystem services that "vertical levees" (i.e., engineered structures) do not. Their conservation and restoration are extremely cost-effective strategies that have enormous economic benefits for society.

Florida Forever acquisitions have preserved more than 70,000[25] acres within coastal watersheds and 6,600[26] acres of fragile coastal resources that provide habitat for native species and build additional resilience through coastal buffering. Future Florida Forever coastal acquisitions could continue to help meet coastal communities' emergency preparedness needs through acquisitions that provide natural disaster mitigation from increased sea level and hurricane-related storm surge and flooding. Several important Florida Forever priority coastal acquisition projects are Estero Bay, Florida Keys Ecosystem, Indian River Lagoon Blueway, St. Joe Timberland and Caber Coastal Connector.

Conservation and Defense



Courtesy of Department of Defense

Habitat preservation through Florida Forever on non-military lands adjacent to and underlying military training zones provides a triple win — it retains the base as an economic driver, advances the state's conservation and wildlife goals, and enhances our quality of life by preserving the "green infrastructure" that is central to Florida's future.

Military lands across the United States provide protection for at least 458 imperiled species; 30 percent of installations harbor at least one species at risk of federal listing.[27] Improving the status of species to avoid the need for federal listing substantially reduces the recovery and lost mission opportunity costs.

It seems an unlikely partnership – conservation and defense. **But soldiers, sailors and airmen need land, air and water to practice their missions and test their equipment.** However, impacts of the defense mission on communities (e.g. noise, safety and dust) and the communities' impact on the defense mission (e.g. incompatible development, fragmentation of habitats and degraded resources) are growing issues confronting military installations and the communities surrounding the bases. To keep the bases from being closed or realigned, we must continue to reduce encroachment conflicts. This will protect this essential industry, as well as ecosystem services.

All 67 Florida counties benefit from defense spending. In fiscal year 2005, **defense-related spending was responsible for $52 billion, or 7.5 percent of Florida's gross state product,** and generated $1 billion in state and local tax revenue. The Department of Defense (DOD) in Florida accounts for an estimated 732,300 direct and associated jobs with average annual earnings of $68,540. Today, more than 58,000 active duty military personnel, along with 26,500 civilians, serve the defense industry at 20 military installations located throughout Florida.[28]

Beginning in 2002, Congress authorized military services to enter into agreements with private conservation organizations, state and local governments to share costs of acquiring conservation buffers near military installations. Approved in the Defense Authorization Act, Congress then appropriates funds in the Defense Appropriations Act to the Readiness and Environmental Protection Initiative (REPI). Since its inception, $9.76 million in REPI funding has been obligated in Florida, while the Army and Navy have added an additional $4.69 million, resulting in the protection of 16,591 acres of ecologically diverse habitat.[29] **Nearly $7 million in REPI funding awaits a Florida match as the 2009 Legislature convenes.**

Recognizing the importance of buffering defense bases, for national security and Florida's economy, the 2006 Florida Legislature amended the Florida Forever statute to give priority to projects that would both achieve the state's conservation plans and overlap with military needs to protect habitats, species, bases and flight corridors.

Working collaboratively, the military, state, and many local governments have successfully protected military training capabilities while conserving important natural resources and maintaining community well-being. Florida Forever has worked to preserve thousands of acres of valuable conservation areas around DOD lands in priority projects such as Bombing Range Ridge, Camp Blanding, Clear Creek/Whiting Field and Escribano Point.


Courtesy of Department of Defense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Ecosystem Services

Many economic benefits are considered "ecosystem services." These include necessities such as drinking water and food production; erosion control, flood regulation and storm protection; the holding and storage of carbon in forests; and values of open space for recreation and personal enjoyment.

Historically, ecosystem services have been considered "free" to individuals and society. No monetary price was paid for them because they were presumably available to everyone.

In the mid 1980s, one of the earliest studies on ecosystem services estimated an average value of $33 trillion per year for services provided by various ecosystems worldwide. This included $17 trillion for the storage, processing and cycling of nutrients; $2.3 trillion for water purification and pollutant removal; and $1.8 trillion for flood control and storm protection.[30]

In Florida, Defenders of Wildlife calculated in 2008 the economic impacts of 10 areas protected through Florida Forever and other state acquisition programs. **The total value of ecosystem services was estimated to be more than $1.8 billion per year.** "Greater economic value can be gained from conservation areas that are well-managed and restored and by preventing overly intensive uses that diminish the natural and economic values," according to the report.[31] Furthermore, the report found that, value of these services will increase in the future as fewer natural areas are available for protection.

Defenders of Wildlife completed another 2008 study that examined the economic values provided by an 825-acre area in Collier County near Big Cypress National Preserve and Florida Panther National Wildlife Refuge. The study concluded that the economic value of the **benefits flowing from these natural lands that accrue to humans in a given year** (e.g. carbon sequestration, water supply, recreation, scenic views, etc.) **ranged from $145 million to $315 million** (values expressed in 2004 dollars).[32] The highest values were determined to come from water provision (via recharge, through infiltration and percolation of rainwater that provide a large share of the public water supply in the area), followed by carbon sequestration.

A 2006 Indian River County assessment found that **the annual value of ecosystem services derived from lands purchased by the county amounted to $23.4 million,** including $19 million derived from freshwater wetlands, $3 million from coastal strand and $600,000 from forests and scrub. **The annual value of services from all county public lands amounted to $768 million.** The economic value of 14 ecosystem services from 12 ecosystem types was estimated based on published studies and original calculations using county environmental lands acreages and program expenditures data. The study concluded that of the $67 million invested in the county environmental program for the preceding 15 years, the county lands paid for themselves in fewer than three years.[33]

Floridians are Willing to Pay

The citizens of Florida have demonstrated over many years that they are willing to pay with their hard-earned tax dollars for the "ecosystem services" that come when land is protected for the public permanently.

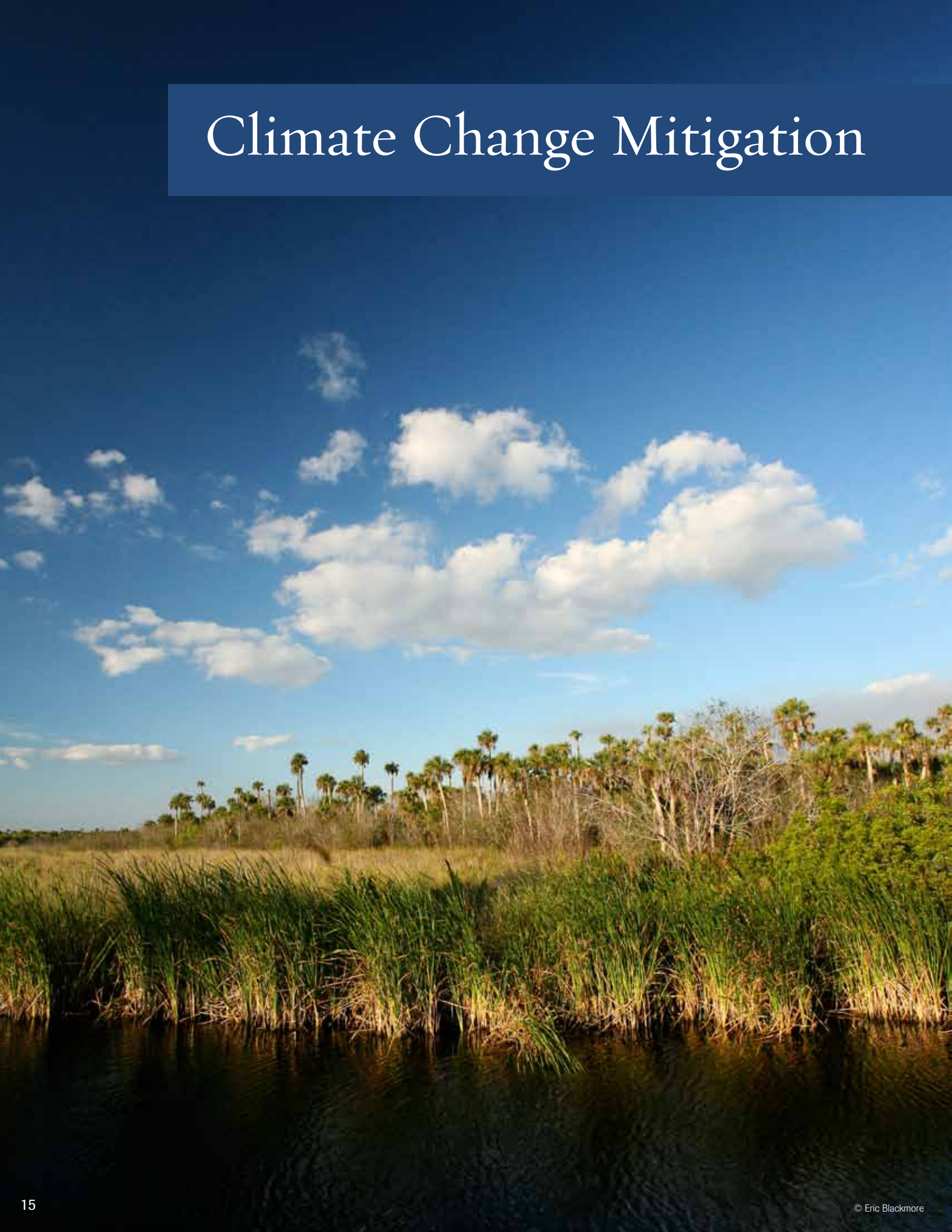
Since 1990, the voters in 78 of 96 local governments have approved funding measures for open space acquisition. When asked on a local ballot, Florida voters overwhelmingly (more than 81 percent) say "yes" to the use of their taxes for land conservation, including residents of Alachua, Brevard, Broward, Charlotte, Collier, Duval, Flagler, Hillsborough, Indian River, Lake, Leon, Martin, Miami-Dade, Osceola, Pinellas, Palm Beach, and Polk counties.

On the statewide level, voters have also spoken loudly in support of land conservation. Constitutional Amendment 5, which permitted the borrowing necessary for Florida Forever, passed with more than 72 percent of the statewide vote in 1998.

Most recently, on the November 4, 2009, statewide ballot, 68 percent of voters backed Constitutional Amendment 4, a measure to encourage property owners to enter perpetual conservation easements over their land or to maintain their land for conservation purposes in exchange for a property tax exemption or reduced property taxes. The measure tallied more than 50 percent of the votes in all but one Florida county, more than 60 percent in 57 of 67 counties, and more than 70 percent in Broward, Clay, Duval, Hillsborough, Lee, Monroe, Nassau, Orange, Palm Beach, and Sarasota counties.

Several ecosystem-service valuation studies have also documented Floridians' willingness to pay for conservation. One study reported that the average household was willing to pay $59 to $79 per year for the restoration of the Florida Everglades.[54] In another study, it was found that residents of four counties in northeast Florida would pay an average of $44 per household for a 250,000-acre conservation program that would use a combination of fee-simple land purchases and conservation easements to maintain water quality and quantity.[55] Yet another study reported a mean willingness-to-pay value as high as $138 per household for moderate levels of improvement in water quality, biodiversity and carbon sequestration through forestry and livestock integration systems in the Lake Okeechobee watershed. [56]

Climate Change Mitigation



Climate change threatens Florida's coastlines, lakes, rivers, forests, native species and communities. Preventing the most catastrophic effects of climate change requires significant reductions in emissions from every sector of the economy. But even if these reductions are achieved, changes to our climate have already started, and very serious effects to people, economies and nature are inevitable.

Strengthening the resilience of natural systems to climate change — through conservation and sustainable resource management — is an important and cost-effective solution that is less expensive than infrastructure development and maintenance-based solutions.[34] Nature-based adaptation strategies are actions that allow people and natural communities to respond to rather than have to repair damages associated with climate change. For example, promoting healthy reefs, mangroves and coastal wetlands along Florida's 8,400 miles of low-lying coastline can minimize damage to coastal communities by buffering them against more frequent and intense storm surges. Protection of critical areas through Florida Forever can strengthen their resiliency to climate change.

By continuing to combine the state's landmark conservation program objectives with coastal adaptation strategies as identified by Governor Crist's Action Team on Energy and Climate Change/Florida Adaptation Technical Working Group, we will help preserve the state's economy, environment and quality of life for Floridians today and into the future.

Another opportunity for deriving economic benefits from land conservation in Florida is to help improve the Earth's climate through the emerging market for "carbon offsets." Under comprehensive energy legislation enacted in 2008, the state is moving to adopt rules for a state cap-and-trade program to be implemented as early as 2010.[35]

According to a study from the University of Florida's School of Natural Resources and Environment, "the forestry and agriculture sectors have enormous potential to reduce and avoid the release of the three most important greenhouse gases: carbon dioxide, methane and nitrous oxide." **Total value of offset potential from components of Florida forestry and agriculture was conservatively estimated at $340 million annually.**[36]

Carbon offsets are a central element under a cap-and-trade system. Emitters of carbon dioxide gain the ability to continue or expand their emissions by offsetting such emissions, usually through the off-site sequestration of carbon, as long as the conditions of additionality and leakage are met. Well-managed, protected lands will continue to store carbon into the future, unlike the same landscapes if developed. Current Florida Forever priority acquisitions include numerous intact forest blocks, such as Northeast Florida Timberlands and Watershed Reserve and the Wekiva-Ocala Greenway.

It is noteworthy that the Everglades is among the most unique natural carbon sinks in Florida. If properly managed, the "River of Grass" will continue to serve as a significant carbon reservoir.[37] Currently, the agricultural lands in the Everglades Agricultural Area release approximately 7.6 million tons of carbon per year into the atmosphere through soil loss. If that land was managed to reduce soil losses, the carbon offsets would provide a funding source under a cap-and-trade or other regulatory mechanism.

The 2008 Florida Forever reauthorization requires that the Department of Environmental Protection (DEP) report on the value of carbon capture and carbon sequestration on state-owned lands and to provide an inventory of those values and how such values can vary with different land uses and land management strategies.[38] At the same time, the DEP is in the process of creating an inventory of carbon capacity and opportunities on private land. These activities will help spur the market for carbon offsets.

Florida Forever

A Legacy of Investment

Florida began funding land acquisition for the public good in the 1960s and continued to do so through the Environmentally Endangered Lands, Conservation and Recreation Lands, Save Our Coast and Save Our Rivers programs.

In 1990, Governor Bob Martinez proposed a new, highly significant commitment to land acquisition. The resulting Preservation 2000 program was the most ambitious effort in the country, dedicating $300 million in bonding for each of the next 10 years. Florida lawmakers supported the creation of this monumental investment and increased the documentary stamp tax for this purpose.

In 1998, Constitutional Amendment 5, permitting long-term borrowing for land conservation, was approved by more than 72 percent of statewide voters, and the following year Governor Jeb Bush and the Florida Legislature created the Florida Forever program, another $3 billion, 10-year program to save and preserve Florida's significant natural and cultural resources. The Florida Forever Act placed a new, greater emphasis on urban and community parks and on protecting water resources and the water supply.

In 2008, the Legislature passed unanimously, and Governor Crist signed into law, a third 10-year land conservation program at $300 million annually. As before, Florida Forever funding must be appropriated by the Legislature every year.

Today's Florida Forever

The 2008 law maintained $300 million in annual Florida Forever funding, made a series of policy changes and altered slightly the allocation of Florida Forever funding. Today, the annual funding for Florida Forever is distributed as follows:

- 35 percent: Conservation and Recreation Lands, Department of Environmental Protection
- 30 percent: Water Resource Protection, Water Management Districts
- 21 percent: Florida Communities Trust C, Department of Community Affairs
- 3.5 percent: Rural and Family Lands, Department of Agriculture and Consumer Services
- 2.5 percent: Stan Mayfield Working Waterfronts program, FCT, Department of Community Affairs
- 2 percent: Florida Recreation Development Assistance Program (FRDAP), Department of Environmental Protection
- 1.5 percent: Wildlife Management Areas, Florida Fish and Wildlife Conservation Commission
- 1.5 percent: State Forests, Division of Forestry, Department of Agriculture and Consumer Services
- 1.5 percent: State Parks, Department of Environmental Protection
- 1.5 percent: Greenways and Trails, Department of Environmental Protection

With the active support of Florida voters, and under the leadership of governors and legislatures of both political parties, our state has wisely invested in the permanent protection of land resources. The results have been good for Florida's environment, economy and quality of life.

Florida Forever

Sustainable Growth

Florida faces a huge challenge to meet the needs of an expanding human population while conserving its natural resources. The University of Florida's (UF) "Florida 2060" study estimates that more than half of the state's agricultural and natural lands will be converted to urban use by 2060 if growth management policies and increased funding for Florida Forever are not realized.[39]

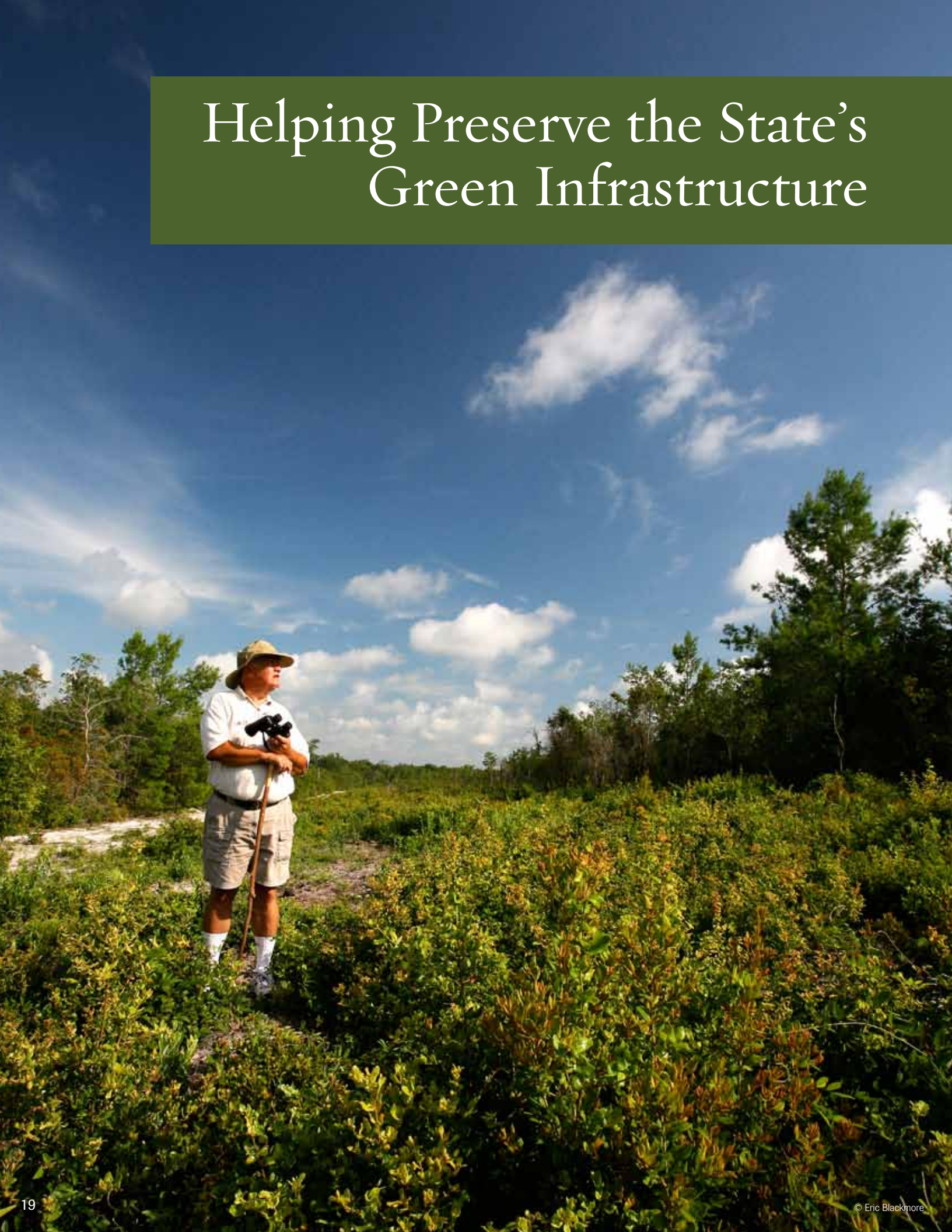
The UF study reported that roughly 7 million acres of additional land will be converted from rural to urban uses in Florida, including 2.7 million acres of existing agricultural lands and 2.7 million acres of native habitat.

This scenario would result in the loss of 630,000 acres of land currently under consideration for purchase by Florida Forever and/or one of the five water management districts. This could also result in more than 2 million acres within 1 mile of existing conservation lands being converted to an urban use, thereby complicating the management of and isolating some conservation holdings in a sea of urbanization.[40]

If growth is not balanced with the needs of people and nature, the state's natural assets will be significantly depleted, as shown in the UF 2060 study. A separate analysis done by The Nature Conservancy found that the projected residential growth of the state by 2020 will result in development of 2 million to 3 million acres of aquifer recharge lands.[41] A truly sustainable Florida will require balancing the state's necessary growth with preserving our natural resources, the foundation of the state's economy and quality of life.

Following the release of the 2060 report, 1000 Friends of Florida released a study to list a set of growth management alternatives to deter the 2060 prediction from becoming a reality and provide a policy framework that would contribute to quality growth. The study recommended balancing maintenance and redevelopment of existing urban areas with new land development, countering urbanized places with protected lands to protect natural functions and create healthy environments for people, and preserving the identity of Florida while simultaneously forging its new image in response to a changing world and population. These recommendations would allow for Florida to plan for future growth that is both sustainable and environmentally friendly to deter the trend of diminishing natural habitats.[42]

Helping Preserve the State's Green Infrastructure



Florida Forever has played a prominent role in helping preserve communities' green infrastructure across the state and has helped promote quality growth. In addition to the benefits already outlined, preserving Florida's green infrastructure enhances property values, reduces gray infrastructure spending, supports business development, and improves health and quality of life.

Enhanced Property Values

A fact long known to homeowners, realtors and economists is that property adjacent to natural areas, parks and greenways increases in value because of proximity to protected land. In fact, the most desired residential and commercial properties in most communities are those that are contiguous with, can be viewed from and have access to protected public land.

According to a study conducted for The Trust for Public Land in 2004, proximity to natural areas and green space had a significant effect on land values in two Florida communities. In densely settled portions of Leon and Alachua counties, the report found single-family homes were worth $14,400 and $8,200 more, respectively, if they were within 100 feet of natural areas. The study also found that proximity to natural areas raised the value of vacant land. In Leon County, vacant parcels within 100 feet of natural areas commanded a premium of $31,800. Leon County had about 5,900 parcels close enough to natural areas to have their values enhanced; Alachua County had 8,100 parcels. **The study estimated that the aggregate impact on land values in Leon County was $159 million and in Alachua County $143 million.**[43]

Reduced Infrastructure Spending

The permanent protection of parks, farms, ranches, forests and preserved natural areas represents a good fiscal investment by Florida communities.[44] Studies have long documented that communities save money by limiting the costs of traditional infrastructure, including roads, water, schools, and sewage and electric utilities. Cities and counties can grow more prudently and less expensively by preserving their "green infrastructure," which includes greenways for recreational purposes, parks, working farms, forests, wetlands and other natural areas.[45]

Cost-of-community-services studies conducted over the last 20 years show working lands generate more public revenues than they receive back in public services. The findings of the nonprofit American Farmland Trust demonstrate that, on average, the median cost (per dollar of revenue raised) to provide public services to different land uses is $0.28 for commercial and industrial, $0.36 for working and open land and $1.15 for residential.[46] **The high cost of residential development is more than triple what a community pays for preserving working agricultural lands.**

When infrastructure savings is coupled with the direct impacts of recreation, increased property values associated with natural areas and revenues associated with agricultural industries like forestry, it is evident that local governments have a long-term interest in preserving their natural and agricultural areas.

Strengthened Local Economy

Florida Forever creates communities people want to live in, and this in turn attracts businesses. Several studies have been conducted to determine what factors are important to talented individuals when they are making employment decisions.[47] Much of today's industry is knowledge-based, as opposed to physical labor, and these "new economy" workers are not tied to a certain location in order to achieve a competitive advantage. Proximity to Florida's beaches are one consistent reason why people choose to live and stay in the state.[48] Florida's state park system is one of the largest in the country with 160 parks encompassing more than 700,000 acres and 100 miles of beaches, much of it acquired through Florida Forever and the state's previous land preservation programs.

A national survey of 1,200 high-technology workers in 1998 found that quality of life in a community increases the attractiveness of a job by 33 percent. Knowledgeable workers prefer places with a diverse range of outdoor recreational activities, from walking trails to horseback riding on the beach, to wildlife viewing. Workers attracted to an area are then positioned to put money back into the local economy through jobs, housing and taxes, which then contribute to parks.[49]

Generates Local Jobs and Revenues

Florida Communities Trust (FCT), a component of Florida Forever, advances local business activity directly. The FCT program makes grants to local governments and eligible nonprofit environmental organizations to acquire community-based parks, natural areas and greenways that further outdoor recreation and natural resource protection needs identified in local government comprehensive plans.

In doing this, FCT contracts for services associated with land acquisition, park development and environmental restoration, and fosters ecotourism. **Since July 2004, businesses in these industries have realized more than $6.8 million in revenue** as a result of acquisition activities associated with FCT parks.[50] Of the 100-plus local park projects acquired by FCT since July 2004, more than 60 can be considered legitimate ecotourism destinations that draw people to communities and generate revenue for local businesses.

Robinson Preserve, a 480-acre preserve in Manatee County, is a good example of a Florida Forever-funded FCT project that provides high environmental, recreational and economic benefits to the local community. The site features a variety of coastal habitats and passive recreational amenities, including a canoe/kayak launch, multi-use asphalt trail, fishing piers, boardwalks and group campground. The county estimates that it has spent a little more than $8 million over the last several years for development of the preserve, and restoration of the wetland areas totaled $6.3 million. The development and restoration of the preserve provided a boost for the local economy through the purchase of supplies and job creation.[51]

Another component program of Florida Forever is designed to provide direct economic benefits to waterfront communities for the purchase of land that facilitates commercial fishing, aquaculture, or promotes and educates the public about the heritage of Florida's traditional working waterfronts. Known as the Stan Mayfield Working Waterfronts Program in the Florida Communities Trust, this new program was created in the 2008 reauthorization of Florida Forever. In its first year, the program received 12 applications from coastal communities and nonprofit groups requesting a combined total of $28.4 million in Florida Forever funds.

Improved Health and Quality of Life

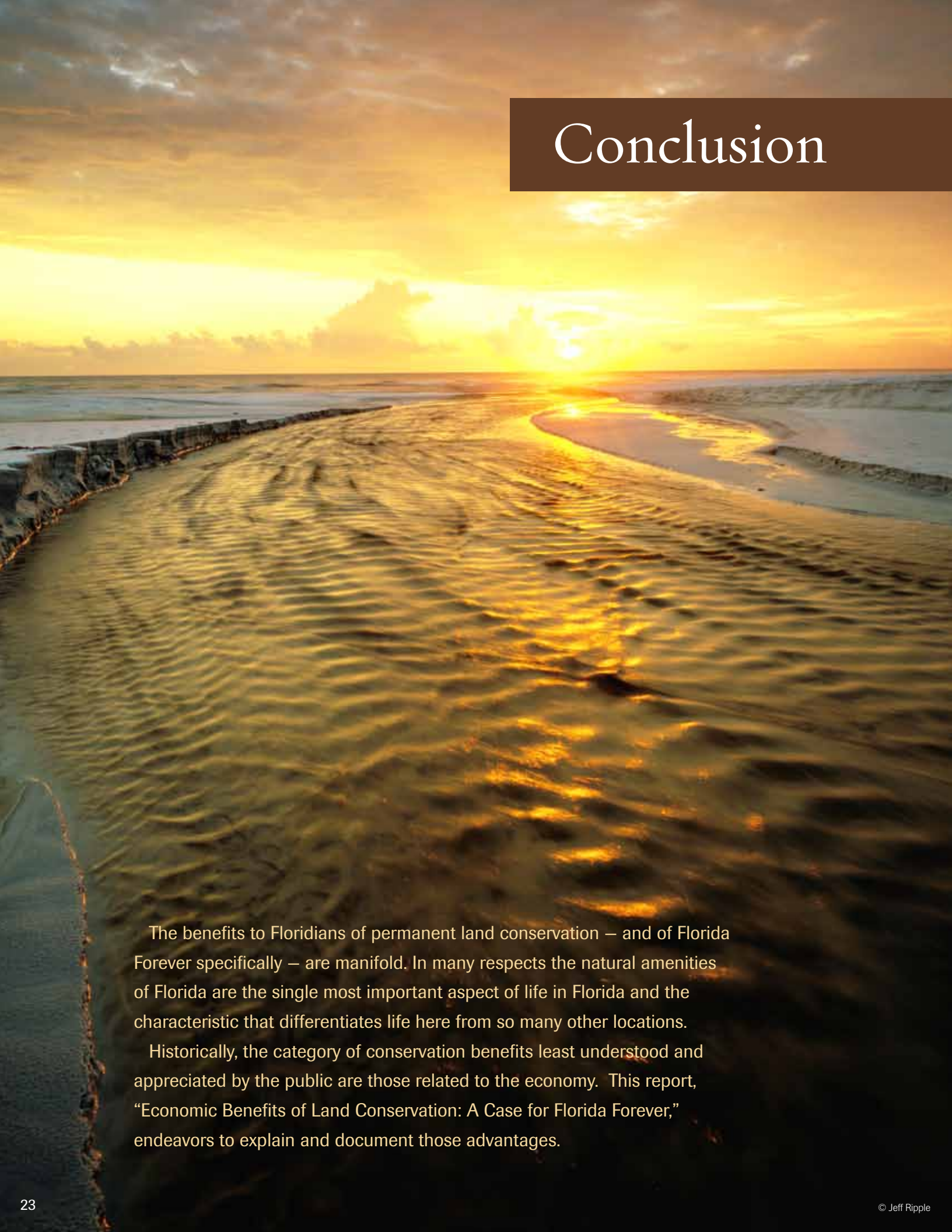
Health benefits afforded by greenways, trails, parks and preserves include increased fitness, reduced obesity, contact with nature and enhanced well-being, according to the American Planning Association.[52]

Florida is committed to the vital role that natural areas, recreational sites and parks play in Floridian's health. In 2007, Governor Crist established the Governor's Council on Physical Fitness. As directed by Executive Order 07-52, the council created a State Action Plan that over the next 10 years would increase the physical fitness of all Floridians through regular exercise and improved nutrition and would reduce the rate of obesity and obesity-related illnesses in Florida. One of the major recommendations made in the State Action Plan included taking advantage of Florida's beautiful greenways, trails and parks to encourage walking, hiking and bike riding. The plan also recommended new construction, if needed, in existing communities and state parks to increase Floridians' ability to walk or bicycle to work and school.

The report specifically encourages "state agencies, counties and cities to identify and implement best practices for community development and renewal as well as assuring effective implementation of existing provisions relating to bike lanes, roadways, green spaces and handicapped access. Permits for projects that incorporate best practices for developing healthy lifestyle communities should be expedited as well as potentially generating additional revenues from our state parks."[53]

By continuing to invest in Florida's natural and recreational areas as directed by the Governor's Physical Fitness recommendations, more Floridians will have the ability to embrace a physically active life from their local parks and preserves.

Conclusion



The benefits to Floridians of permanent land conservation — and of Florida Forever specifically — are manifold. In many respects the natural amenities of Florida are the single most important aspect of life in Florida and the characteristic that differentiates life here from so many other locations.

Historically, the category of conservation benefits least understood and appreciated by the public are those related to the economy. This report, "Economic Benefits of Land Conservation: A Case for Florida Forever," endeavors to explain and document those advantages.

The preceding pages report that:

- Healthy native habitats and species are an integral component of the foundation of Florida's tourism industry – Florida's single most important economic engine. During 2006, wildlife viewing alone had a total economic impact of $5.2 billion and supported a minimum of 51,000 jobs.
- Fishing and hunting accounted for a robust industry of more than $8 billion in 2006 and helped support almost 85,300 jobs. This industry requires healthy freshwater, forest, and marine ecosystems to sustain the state's fisheries and wildlife populations.
- Based on Fiscal Year 2007-2008 data, the Florida state park system had an overall direct economic impact of more than $1 billion on local economies throughout the state. More than $70 million was contributed to general revenues in the form of state sales taxes, and 20,100 jobs were generated as a result of the state parks' operations.

The report also finds that:

- Florida's agriculture industry is tied to natural resource protection and provides economic, cultural, recreational and ecological benefits. In 2006, the state's forest products and ranching industries accounted for a $9.8 billion economic impact and supported a minimum of 195,000 jobs.
- Conservation helps to buffer Florida's military installations and to continue national security training while helping preserve Florida's natural communities and threatened and endangered species. Military facilities must be buffered to avoid future base closures in Florida.

These findings — and the dependence of many of Florida's key industries on healthy natural resources — make clear the importance of Florida's investment in land conservation. **The support of taxpayers, businesses, legislators and governors for Florida Forever, and Preservation 2000 before it, has yielded real and sustainable economic benefits.**

Today we face economic challenges that make the role of Florida Forever even more essential. In order to sustain Florida's economy and quality of life, Florida's leaders need to continue to seek approaches that meet the needs of the present generation without compromising the ability of future generations to meet their needs.[61]

Several major reports have found that Florida's land and water protection programs must be expanded to continue to provide the foundation for human life and business in the state.[62] Individual member organizations of the Florida Forever Coalition estimate that there exists a $17 billion need for Florida Forever ranked projects alone,[63] and $4.5 billion for parks and recreation.[64]

Loss of natural land through development is almost always irreversible. Unlike money, we cannot borrow more Florida springs, sandhills or longleaf pine forests. As demonstrated by the billions of dollars governments have been required to pay for environmental restoration projects in Florida, such as the Everglades (first priced at $8 billion but now estimated at $20 billion), Lake Okeechobee ($1.3 billion), and the St. Johns River ($625 million), **it is far less costly to preserve natural resources through landmark programs like Florida Forever than to try to restore them later.** Land protection ultimately results in fewer costs to taxpayers and avoids negative impacts to the industries that clearly rely on functioning ecosystems.

By stimulating Florida's economy through Florida Forever and other initiatives that sustain healthy and functioning ecosystems, Florida's policymakers can ensure future generations inherit the "life support systems" that are the foundation of Florida's quality of life and economic prosperity.

Conclusion

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Florida Forever Coalition

Composed of more than 100 nonprofit groups, public agencies and private parties, the Florida Forever Coalition is dedicated to the long-term success of the Florida Forever Program. For more information, visit www.supportfloridaforever.org.

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