

Florida's Legacy

a guide to protecting what's best about
Florida for future generations

2016 Briefing Book



Florida Conservation Voters Education Fund

Dear Reader,

In collaboration with more than a dozen conservation groups and experts in their fields, Florida Conservation Voters Education Fund assembled this briefing book to serve as a guide to understanding key environmental issues currently facing our state.

Florida’s natural areas top the list of reasons why so many people choose to live here. Our beaches and parks attract millions of visitors every year and drive our economy. Our state and local parks provide a place for us to reconnect with nature and relieve the stress that comes with our increasingly complex society. Our stunning network of springs and treasured wetlands like the Everglades provide drinking water to millions.

As demonstrated by the overwhelming support for Amendment 1, the Water and Land Conservation Amendment, the desire to protect our water and conservation lands is one thing that unifies Floridians in all corners of the state, from every walk of life.

Florida’s Legacy is a roadmap for actions policymakers can take now to ensure that while our economy grows and our population soars, we are protecting the best of Florida and ensuring that every generation has the opportunity to enjoy our amazing rivers, springs, conservation lands, and treasures like the Everglades.

The time to act is now.

For Florida,



A handwritten signature in blue ink that reads "Alik Moncrief".

Alik Moncrief
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PARKS

SAVE FLORIDA'S GREAT OUTDOORS

Floridians take great pride in their state parks. They are the heart of what makes Florida special.

A legacy of preservation

The Florida Park Service has managed Florida's state parks for 80 years and 2016 marks the 100th anniversary of the dedication of Florida's first state park.

State law directs the agency "to acquire typical portions of the original domain of such character as to emblemize the state's natural values and conserve those values for all time." This is interpreted to mean that representative examples of original natural Florida will be restored and managed as they appeared when Europeans arrived in 1513, to the extent possible.

Living natural museums

Thanks to the vision and dedication of our park rangers and biologists, Floridians can observe what Florida looked like when its history was being made. They can visit Ichetucknee Springs State Park, near Lake City, to experience the springs as Hernando de Soto did when he was there in 1539. At Manatee Springs State Park, near Chiefland, they can see the natural landscape that naturalist William Bartram described in 1774, and they can visit Torreya State Park, in Liberty County, to witness the natural conditions that General Andrew Jackson experienced there in

1818 during the First Seminole War. No other state has managed their state parks with this extraordinary vision.

An economic engine

Our state parks were enjoyed by more than 27 million Floridians and tourists in 2014, providing a huge economic boost to both the state and local economies.¹ Additionally state parks provide 77 percent of their costs, the most ever, historically.

Ours is the premier state park system in the United States, having won the national state parks Gold Medal Award three times in the last decade. In many of our state's more rural counties, the state park is one of the most important attractions drawing visitors to the county and supporting small businesses that depend on tourism for survival.

Photo by Jason Flom



The Department of Environmental Protection oversees the Florida Park Service and is responsible for the protection of Florida's state parks. The state parks have been a single-use agency for 80 years, meaning that activities as logging and livestock grazing are very limited. Our 174 state parks provide one of the few remaining opportunities to observe and photograph wildlife where they feel safe, and to enjoy the serenity and beauty of Florida's finest natural areas.

State parks are living natural museums where we can experience remnants of Florida as they were when it was first explored by Europeans. In our fast-developing Florida landscape and increasingly complex world, state parks allow Floridians and visitors to enjoy the real Florida and protect what we love most for future generations.

FOR EVERY 1,000 VISITORS TO
A STATE PARK IN FLORIDA,
THE TOTAL DIRECT ECONOMIC
IMPACT ON THE LOCAL
COMMUNITY IS \$77,280.²



COMMUNITY PARKS PROVIDE URBAN OASES

For many families in Florida’s metropolitan areas, the majority of their time spent in the natural world occurs at community parks. This is where Floridians gather with families, watch their children’s athletic games, exercise and explore nature through trails and greenways.

In addition to their recreational benefits, parks are economic engines for communities seeking to attract and retain residents and businesses. Because close proximity to parks is usually considered an amenity to homeowners and renters, this trend ultimately raises the property values of homes and businesses.

Additionally, preserving parks and open space increases residents’ level of physical activity and generates medical cost savings for those who exercise in these important places. Preserving parks, open space, and working lands creates recreation opportunities for residents and visitors, and generates revenue and jobs in the local economy.

Florida has an excellent parks program known as Florida Communities Trust (“FCT”). FCT was created in 1991 to provide state matching funding for local governments to buy land for the protection of natural areas and provide close-to-home recreational opportunities. Since its inception, FCT has helped acquire land for nearly 600 local or regional parks. The program is extremely popular with local officials and citizens because of its focus on meeting community needs and priorities and providing tangible results. One of the economic benefits of this program is that the cost of maintaining the land is covered by local governments, placing no additional burden on state

land management funds.

Perhaps most importantly, FCT is the only state program aimed at urban open space conservation needs—providing high quality outdoor recreational opportunities, greenways, trails, playgrounds, and other spaces that families can use on a daily basis because they are near their homes and workplaces.

In recent years, FCT has not been adequately funded, but with Florida’s

ever-increasing population, the need for community parks remains great. Additionally, with the passage of the Water and Land Conservation Amendment (“Amendment 1”) there is now a stable dedicated funding source for restoring conservation lands and acquiring new ones. Therefore, we recommend policymakers provide new and adequate funding for Florida Communities Trust to directly benefit the people of Florida and the communities in which they live.

PEOPLE WHO LIVE CLOSER TO PARKS EXERCISE MORE ³



1 & 2 DEP FY 2013-2014 Florida State Park - Economic Impact Assessment.

3 Cohen DA, McKenzie TL, Sehgal A, Williamson S, Golinelli D, Lurie N. Contribution of public parks to physical activity. *American Journal of Public Health*. Mar 2007.

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THE
TRUST
FOR
PUBLIC
LAND



CONSERVATION LANDS

INVEST IN FLORIDA'S FUTURE

Florida has a long and proud history of acquiring land for conservation and recreation.

Floridians want conservation

Going back to 1963, Florida voters and elected officials have dedicated significant state and local funding to protect our state's most important natural areas and provide access for visitors and residents alike to experience the "real" Florida.

Floridians in dozens of counties and cities throughout the state have voted to dedicate local funds for conservation. These strategic land conservation programs have provided immense benefits to Florida's wildlife, helping to bring back cherished species such as the Florida panther and West Indian manatee from the brink of extinction. They have also resulted in the nation's top-rated State Park system. They have provided nature-based solutions to protecting our state's drinking water supply, controlled flooding, and mitigated the impact of hurricanes and coastal storms.

Florida's commitment to land conservation has also made important and often overlooked contributions to the state's economy in jobs, taxes, tourism, and other revenue. Protecting working and open lands maintains lower demand for public services. Open space and agricultural lands save communities costs in the form of decreased

demand for schools, roads, sewers, public safety, and other community services. The market values of residential properties located near parks and natural areas are typically higher than those of comparable properties more distant from such public lands. Property owners benefit from higher property values and local governments benefit from an increased tax base.

Additionally, our growing population puts increased demands on natural resources that support this growth, most importantly clean drinking water. Protecting land is the most conservative and cost-effective way to protect our water supply. Natural, undeveloped land adjacent to waterbodies acts as a filter and barrier for pesticides, fertilizers, and other pollutants, allowing clean water to replenish the Floridan aquifer which supplies 90 percent of our state's drinking water.

Conservation is cost-effective

It is far cheaper to buy environmentally sensitive lands than to restore our natural systems once they have been damaged by poorly planned development, as evidenced by the tremendous price tags for restoration of the Everglades, our springs and the Indian River Lagoon.

Smart policy involves an investment in the future in the form of strategic and science-based land acquisition. Florida already has an award-winning conservation and recreation lands acquisition program, Florida Forever Amendment 1, which received an unprecedented 75 percent voter approval, provides a dedicated funding stream to purchase these critical conservation lands.

Conservation easements protect rural landscapes

Protection of the state's agricultural land base is an increasingly important priority for the state's land conservation programs. The use of voluntary conservation partnership agreements, also known as conservation easements, is an increasingly popular and effective land conservation tool. In many cases, prohibiting future development, while also allowing for continued private stewardship of working lands, can provide greater benefits than outright public ownership while not adding to the state land management burden. The Rural and Family Lands program has demonstrated that there is significant interest among private landowners throughout the state in land conservation through conservation easements, keeping the in private ownership and on the tax roll, while preventing future residential or commercial development.



MANAGING OUR CONSERVATION LANDS

Continued conservation and recreation land acquisition is essential for nature and the economy. Therefore we recommend policymakers:

- fund high-priority Florida Forever projects to complete the state's network of core conservation areas and wildlife corridors to allow the movement of wildlife;
- fund Florida Communities Trust to provide nature-based solutions to infrastructure problems and an adequate land-base to meet future public recreation needs;
- fund the Rural and Family Lands program to protect Florida's farms, ranches, and working lands through voluntary conservation partnership agreements which will provide key buffers to public nature preserves and help maintain our state's agricultural economy;
- fully fund land management of public lands to increase bio-diversity and combat invasive species.

Our landscapes need fire

The diversity of plants and animals in Florida is adapted to and dependent on fire. And the scenic beauty of Florida's upland and wetland landscapes is maintained by fire. Without fire, both may be lost. Support for prescribed burning and the agencies that manage with fire is critical to protect the real Florida. The plant and animal species diversity in fire-dependent pine savannahs of Florida rival the richness found anywhere else in North America. Many of these species cannot exist without periodic fires that provide nutrients, maintain structure, or prevent the encroachment of hardwoods that shade out essential habitat. Northern bobwhite quail, gopher tortoises, and turkeys all depend on grassy savannas for their way of life. In the end, fire suppression in fire-dependent landscapes can be as damaging as other forms of land conversion.

We must combat exotic, invasive plants and animals

We must combat exotic invasive plants and animals. More than any other state, exotic invasive plants and animals threaten our state's native flora and fauna. Exotic invasive plants like cogongrass, Brazilian pepper,

and climbing fern can overrun protected natural areas, pushing out or smothering native species. Often, small prevention efforts early can prevent huge, costly eradication efforts and the loss of native wildlife later. Programs that provide cost-efficient strategies to prevent the establishment of new introduced species can prevent the enormous expenses of managing them once they become established.

Managed public lands need buffers

Development on the edges of our public natural areas makes prescribed fire, restoration, and fighting exotic invasive species more challenging. Funding conservation programs like Florida Forever and the Rural and Family Lands program assists private landowners with protecting their land and ensures that Florida agricultural lands can persist with development pressures. Protecting private lands can buffer adjacent public lands from suburban development. Funding the acquisition of outparcels and optimum boundaries to State Parks, Forests, Wildlife Management Areas and other actively managed lands reduces conflicts when conducting prescribed fire, battling exotics, and performing other natural resource management activities.

A LEGACY OF CONSERVATION

1963: THE LAND ACQUISITION TRUST FUND (LATF)
1972: ENVIRONMENTALLY ENDANGERED LANDS (EEL)
1979: CONSERVATION AND RECREATION LAND (CARL)
1981: SAVE OUR COASTS AND SAVE OUR RIVERS
1991: PRESERVATION 2000
1999: FLORIDA FOREVER

ADDITIONAL READING:

Florida's Landmark Programs for Conservation and Recreation Land Acquisition, James A. Farr, Ph.D. and O. Greg Brock, Ph.D. <http://www.dep.state.fl.us/lands/AcqHistory.htm>

Land Conservation in Florida Makes Economic Sense, *The Trust for Public Land*, Jessica Sargent

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WILDLIFE

PROTECT CRITICAL HABITATS AND CORRIDORS

From the Keys and Everglades to the Apalachicola and St. John’s River Basins, Florida is home to some of the country’s most rare and astonishing habitat and wildlife, but also some of the most imperiled.

Florida’s temperate and tropical climates give rise to 80 different ecosystems, providing unique habitats to a vast array of plants and animals. Our beautiful and diverse wildlife ranges from least terns and other shorebirds on our beaches to tiny sand skinks in the ancient scrub on the Lake Wales Ridge. The Florida panther, our state animal, roams the wildlands of south and south-central Florida. Florida is also abundant with game species such as white-tailed deer, American alligator, bobwhite quail, tarpon, and largemouth bass.

Many species native to our state, such as the Florida bonneted bat and Florida scrub jay, are found nowhere else in the world. The Apalachicola River Basin, the south-central highlands, the pine rocklands, the tropical hammocks of south Florida

and the state’s marine habitats are home to some of the nation’s highest concentrations of rare species.

Because of its natural beauty and mild weather, Florida is also a desirable place to live and visit. Our state is a top travel destination in the world, hosting a record 97 million visitors in 2014. Excursions to see Florida’s diverse wildlife account for \$5.6 billion in spending annually. Many visitors return to live in Florida. With a steadily improving economy and a growing population of almost 20 million people, development and road building are accelerating.

This places the Sunshine State in the challenging position of having both tremendous wildlife diversity and mounting pressure from growth, which is changing our landscapes and

shorelines.

Impacts to the land and waters have led to the loss of biological diversity through habitat degradation, fragmentation, and destruction. Populations of many native plant and animal species have declined, and non-native species have invaded and harmed native wildlife. The effects of climate change also threaten biological diversity. Reduction in diversity of plants and animals makes food supplies more vulnerable to pests and disease, and makes freshwater irregular or in short supply, which threatens our quality of life.

By safeguarding wildlife diversity and natural habitats, we can help ensure the continued supply of essential environmental goods and services, such as clean and abundant



IN 2015, A RECORD 29 PANTHERS WERE KILLED BY VEHICLES¹ VEHICULAR COLLISIONS IS THE LEADING CAUSE OF DEATH FOR FLORIDA PANTHERS



Policymakers can help protect core habitat and wildlife corridors by taking these actions:

- fully fund land acquisition and conservation easement programs like Florida Forever;
- strengthen incentives to protect, manage and restore wildlife habitat;
- minimize habitat fragmentation through sound transportation and land-use planning;
- prevent and reduce conflict with wildlife through:
 - ♦ sound transportation and land-use planning;
 - ♦ installation of wildlife crossings;
 - ♦ implementation of programs that encourage responsible homeowner practices.

NEARLY 20 ACRES OF WILDLIFE HABITAT ARE LOST TO NEW DEVELOPMENT EVERY HOUR IN FLORIDA²



MANY SPECIES, LIKE THE FLORIDA BONNETED BAT AND FLORIDA SCRUB JAY, ARE FOUND NOWHERE ELSE IN THE WORLD



Photo by Victor Hurlburt

freshwater, flood control, and coastal protection.

To conserve the state's diverse wildlife and habitat, we must make sure wildlife have the space and resources to survive. We must protect sufficient habitat, manage it for resiliency by applying prescribed fire and eradicating invasive exotic plants and animals, and safeguard vulnerable species from direct impacts like road mortality or nest disturbance.

By helping wildlife survive, we sustain our economy, protect our drinking water supply, buffer agriculture and military uses from urban

encroachment, and provide places for Floridians and tourists to enjoy the outdoors. Only through good policy and wise, long-term planning can we protect our diverse wildlife and rare ecosystems for our benefit now and into the future.

¹ "FWC counts record 29th Florida panther roadkill on State Road 29 south of Immokalee," *Naples Daily News*, 12/22/15

² "Florida Black Bear Background and Recovery." *Defenders of Wildlife*, 2010.

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GROWTH MANAGEMENT

PLAN FOR WISE GROWTH

For the past hundred years, growth and development have been a major component of Florida's economy and one of the dominant themes in our state's history.

Where and how our state grows affects the lives of every Floridian and drives many of our most important public policy debates on issues as diverse as transportation, education, healthcare, taxes, agriculture, and natural resource protection. Unplanned and uncontrolled growth is a threat to our economy, environment, drinking water supply, and quality of life for current and future generations.

As Florida's population has grown, with rooftops and pavement replacing trees and wetlands across our state, it is clear that development needs to occur in a more thoughtful manner

so that we do not destroy and forever lose the natural resources, quality of life, and unique communities that are the foundation for our economic prosperity.

Florida's growth rate once again is returning to its historic highs of nearly 1,000 new Floridians each day. Significant changes in growth management law and governance during and since the great recession have left Florida less prepared to properly manage this growth and meet the needs of its citizens. More than ever, Florida needs a workable, sustainable, long-term vision for the future of our state together with

the political will to put in place the policies, regulations, and incentives to achieve that vision. Development and conservation decisions should flow from this vision, which must include land-use strategies to foster sustainable, compact, and energy-efficient development in order to protect watersheds, wildlife corridors, and natural lands and systems.

Effective planning must address both where and how development occurs. Some areas of our state are simply not suitable for development and must be preserved as natural lands or agriculture. Such lands should be permanently protected from development through public acquisition, purchase or dedication of conservation easements, or other protections in public-private partnership between local governments and landowners.

In areas where development is suitable and needed, appropriate infrastructure must be put in place to protect the quality of life of current and future residents. Without strong growth management tools, Florida loses the ability to strategically locate and plan new developments, to the benefit of all, while at the same time protecting critical natural resources.



To ensure wise growth and development in Florida, now the third largest state in the nation, policymakers can:

- promote infill development and rehabilitation of existing urban areas over creating new towns. Infill and redevelopment are the most cost-effective, sustainable, and environmentally sensitive forms of developments and should be rewarded;
- only allow new communities in rural areas when there is a demonstrated need, and only in return for clear public benefit:
 - ◆ in return for the right to convert rural lands to urban, require developers to place significant tracts of rural land in permanent environmental or agricultural conservation;
 - ◆ require new communities to have sustainability plans that identify the critical mass needed to support the community's job center, schools, parks and recreation, and stores, and plans for the community's growth to build out, including provisions that if work centers are not constructed as planned, the project is halted in order to prevent sprawl;
- ensure that new development covers the costs of associated infrastructure and services so that taxpayers do not subsidize development or face the inevitable congestion that is the result of insufficient public infrastructure and services in existing communities.



FLORIDA'S GROWTH RATE IS ONCE AGAIN RETURNING TO ITS HISTORIC HIGHS OF NEARLY 1,000 NEW FLORIDIANS EACH DAY

Today, local governments have near total autonomy in determining the density, intensity, scale, and timing of developments within their boundaries. In many cases, such local government autonomy is appropriate, allowing communities to develop in a manner and timeframe that best fulfills the desires of local residents. However, as Senator Tom Lee wrote in 2009, "There is a compelling public purpose for state oversight of the growth process...State oversight can serve to hold rogue governments in check, ensure consistency, and bring predictability to the process..."

When significant local, regional or state resources will be impaired, adjacent communities will be impacted, or when local governments fail to comply with the provisions of their own comprehensive plans or

state law, state oversight is vital to protecting Florida's natural resources, economy and people.

Some local governments have enacted exceptional policies to protect natural resources and existing communities from the impacts of inappropriate new development but, in some instances, policymakers have sought to preempt local government control, forcing development upon these communities whether it is desired or not. In these instances, the state should defer to local government decision-making.

Through better planning policy, we can ensure that our state continues to grow wisely, and that communities are livable, commutable and healthy for all those families who make Florida their home.

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BEACHES & COASTLINES

PROTECT OUR MOST PRECIOUS NATURAL ASSETS

Our Florida way of life wouldn't be the same without healthy coasts and beaches. They define our state, are the economic engine that drives our tourism industry and make Florida a great place to call home.

Our beaches are at risk

Many Floridians have first-hand experience with the threats to our beaches and estuaries caused by overdevelopment, shoreline armoring, degraded water quality, and increasingly, sea-level rise. Half of our beaches have been designated as "critically eroded," meaning most of the adjacent upland development needs protection from the encroaching surf. Our beaches are being squeezed between high-risk shoreline development and long-term coastal erosion. Development on the most seaward dunes combined with efforts to protect that development from surf has established a line in the sand that prevents beaches from moving naturally.

Sea walls do much more harm than good

As properties become threatened by erosion, owners look for ways to combat beach erosion through expensive beach nourishment or building sea walls. But hard armoring of the beach with steel and concrete seawalls or other coastal structures can actually increase coastal erosion by increasing wave energy in front of the structures and locking up beach sand landward of the seawalls that would normally be available to help beaches recover naturally from storm events. While a sea wall may temporarily save the structure, the public beach is ultimately lost unless the sand is constantly replenished. In addition to reducing shoreline resiliency, sea walls also damage beach

habitat that is critical to shore bird and sea turtle nesting. Therefore we must plan ways for natural habitats to migrate upslope ahead of sea-level rise. Creating migration corridors for coastal habitat will be key.

Florida is the most at-risk state for sea-level rise

Because of its extensive coastline and low water-table, Florida is the most at-risk state for sea-level rise, yet there is no reference to these issues in any of the state's coastal development and beach management laws, and there is no statewide plan to mitigate the impacts of climate change and sea-level rise to our beaches.

Many coastal states including North Carolina, New Jersey, and California are adopting coastal management policies that consider sea-level rise. At a minimum, Florida's policymakers should direct the Department of Environmental Protection to conduct a study on anticipated sea-level rise impacts to Florida's coasts and recommend monitoring and policies to guide local governments and state agencies in their coastal management, planning, and land-use decisions.

IN 2014 A RECORD NUMBER OF 97.3 MILLION VISITORS CAME TO FLORIDA, RESULTING IN MORE THAN \$80 BILLION IN TOURIST SPENDING.

NEARLY HALF OF VISITORS ENJOYED OUR BEACHES



FLORIDA CONSERVATION VOTERS EDUCATION FUND

To adapt to an era of rising seas and ensure coastal resiliency, policymakers can:

- establish a Coastal Commission of scientists and other experts to help guide coastal policy;
- establish a coastal land acquisition program, which includes both direct purchases and conservation easements;
- update and implement inlet management plans so there is no net loss of sand to the coastal system;
- create new policies that incentivize the landward siting of new coastal development;
- implement post-disaster redevelopment policies that restrict rebuilding in the same vulnerable coastal locations after storms;
- reform the state's 25-year-old coastal development laws to reduce development on the frontal dunes of critically eroding beaches;
- fund the Florida Healthy Beaches Program with sustainable, recurring state revenue;
- adopt strong stormwater rules and institute a policy that notifies the public when there are sewage overflows;
- curb plastic and other pollution by returning homerule to local governments so that they can regulate pesticides, fertilizers, and single-use plastic bags;
- set resource-based carrying capacities for special coastal areas like beach state parks and wildlife refuges will help ensure they remain vital habitats and quality user experiences well into the future.

NEARLY 60 PERCENT OF FLORIDIANS LIVE WITHIN JUST 10 MILES OF THE COAST



We still have time to protect our beaches

Florida's beaches are the most visited in the world and our coastline is world-renowned for sugar-sand shores and crystal-clear waters. We must protect these priceless natural assets and our economy by taking measures to mitigate the effects of climate change and sea-level rise for our families and for future generations.

Fortunately, there are many ways for policymakers to take action and protect our coasts against rising seas, reduce pollution, and ensure coastal protection and resiliency.



Photo by Bart Kicklighter

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WATER

MAKE WATER CONSERVATION A PRIORITY

Florida needs bold leadership from policymakers on water issues to ensure the long-term environmental health of our natural resources and economic well-being of our communities in the years to come.

Clean, abundant water is critical for Florida's future

Water is the linchpin of our environment and our economy, sustaining natural systems, public health, tourism, recreational and commercial fishing, agriculture, and development. Making bad water-use decisions now will only result in costlier and more contentious challenges in the future.

With population estimated to grow by 25% between now and 2040, there is an urgent need for state and local governments, water managers, utilities, industry, agricultural interests, and all Floridians to address the continued depletion of our water supplies. A balanced approach to water supply planning must assure the sufficient availability of water for natural systems and beneficial uses that serve the public interest.

Two options exist: decrease demand or utilize untapped sources

In terms of water resources these two options are often defined as water conservation and efficiency (to decrease demand) or development of alternative water supplies (using untapped sources to increase supply).

The only way to meet our long-term water needs is through a sophisticated mix of aggressive water conservation followed by sustainable alternative water supply development.

A growing body of research shows that water conservation offers significant advantages over alternative water development including:

- lower capital and incremental costs;
- reduced energy consumption, which minimizes greenhouse gas emissions;

- improved water quality by reducing runoff from inefficient irrigation;
- increased flow and levels in springs, rivers, lakes, and aquifers;
- greater predictability and sustainability for all water users.

We cannot afford to rely on surface water supplies

Surface waters, which are identified as the primary “alternative water source” by the Central Florida Water Initiative and other regional water supply plans, are dependent upon adequate rainfall. By relying upon surface water withdrawals to meet Florida's future water needs, policymakers would lock our state into an unavoidable clash between the needs of our natural systems and the needs of water users during times of decreased rainfall.

For instance, during droughts, when



BY 2040, FLORIDA'S POPULATION WILL REACH 30 MILLION, PLACING ENORMOUS PRESSURE ON OUR NATURAL SYSTEMS

Photo by Norman Taylor



To ensure a clean and abundant water supply for Florida's communities, agriculture, and natural areas, policymakers can:

- make water conservation a statewide priority and require all water permits (consumptive use permits) to include measurable and enforceable goal-based water conservation plans;
- price water to promote conservation. Placing a reasonable price on the quantity of water used would create incentives to conserve water and direct water towards higher value uses;
- expedite the establishment and adoption of Minimum Flows and Levels and incorporate them into water supply planning statewide;
- establish statutory consequences for failure to meet standards so that restoration of water resources will not become more difficult and more costly for future generations;
- meet future water supply needs by knowing how much water is being used today. All groundwater withdrawals of 100,000 gallons per day should be monitored;
- minimize and regulate the amount of public money transferred to private interests through capital expenditures, especially in cases where there is no assurance of the cost effectiveness of projects;
- prohibit unilateral inter-basin transfers of water. For example, water management districts should not make water allocation decisions beyond their jurisdictional boundaries;
- allow local governments to regulate the use of urban fertilizers;
- implement water-use planning and reasonable and common-sense best management practices in the agricultural sector.

A RECENT SURVEY BY THE UNIVERSITY OF FLORIDA CENTER FOR PUBLIC ISSUES FOUND THAT 83% OF FLORIDA RESIDENTS RATED WATER AS HIGHLY OR EXTREMELY IMPORTANT, PLACING IT IN THE TOP THREE ISSUES VOTERS ARE CONCERNED ABOUT.

our rivers and lakes most need to maintain their flows and levels for sustaining wetlands, fisheries, and estuaries and to reduce saltwater intrusion, water users (particularly agricultural and residential users), would withdraw the greatest amounts of water.

The Florida-Georgia water wars and the dramatic decline of Apalachicola Bay serve as a vivid reminder of the devastating impacts to our waterbodies, fisheries, and downstream communities that result from the mismanagement of water resources and the reliance on unsustainable sources, like surface waters, to meet unchecked demand.

Relying on surface water withdrawals to meet Florida's future water needs is unsustainable in the long-term and unwise in the short-term. Policymakers should focus more attention on decreasing demand through aggressive conservation and

increased efficiency.

Prioritizing water conservation reduces the need for expensive, unsustainable water withdrawals while protecting downstream users and ecosystems. Responsible demand management will ensure that the needs of reasonable and beneficial water users are met today and into the future.



Photo by Jo Shaw

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SPRINGS

RESTORE FLORIDA'S CROWN JEWELS

Florida has the greatest collection of artesian springs in the world. The largest of these springs are iconic and beloved by Floridians and visitors alike.

In addition to being part of our natural heritage and a great source of enjoyment and recreation, the value of springs can also be measured by the environmental and economic benefits that springs provide.

Florida's springs are characterized by a flow of crystal clear, fresh water from deep beneath the earth's surface—pools of stunning blue wonder. Nearly every aspect of a spring, from the basin size and shape, to the fish, wildlife, and plants in the spring run, and the public uses of the spring, are dependent upon this flow of water. Every human use of water in a springshed, the area of land that

recharges water to a spring, affects the health of the spring. Additionally, many domestic, agricultural, commercial, and public water supply operations conducted in Florida use groundwater that would otherwise discharge through the Floridan aquifer and replenish our artesian springs.

During the past two decades, the degradation of Florida's springs has become undeniable. Every major artesian spring in Florida except those few in remote areas far from human population are experiencing declining flows as a result of water withdrawals from the Floridan aquifer.

Florida's rapidly growing population and corresponding land-use changes together have drastically altered the quality of our springs. Increased nitrate-nitrogen concentrations in groundwater is one of the most alarming environmental consequences of the past half century of agricultural and urban development. High concentrations of these nutrients pose a serious threat to our drinking water supplies and are polluting our surface waters.

Healthy springs are a precious natural resource in Florida for the ecological, economic, social, and spiritual benefits they provide. By focusing

MORE THAN 200 OF OUR SPRINGS HAVE INDIVIDUAL DAILY AVERAGE FLOWS RANGING FROM ABOUT 7 MILLION TO MORE THAN 500 MILLION GALLONS OF ARTESIAN GROUNDWATER PER DAY. THE LARGEST OF THESE SPRINGS ARE WELL-KNOWN: CRYSTAL RIVER, HOMOSASSA, ICHETUCKNEE, MANATEE, RAINBOW, SILVER, WAKULLA, WEEKI WACHEE, WEKIVA, AND VOLUSIA BLUE.



To reduce harmful impacts and restore our springs to their former vitality, policymakers can develop a comprehensive statewide plan to:

- conserve and restore land in springsheds and surrounding areas;
- provide matching grants to cities and counties to remove polluting septic systems in springsheds and connect properties to central sewer;
- reduce harmful agricultural land-use practices—for example restrict nitrogen fertilizer use within springsheds by establishing a nitrogen-use fee;
- improve practices for treating municipal, agricultural, and commercial wastewaters;
- enforce water conservation measures in all springsheds with a substantial reduction in the withdrawal of groundwater for human uses based on the goal of preserving the natural water resource values of artesian springs;
- implement a water-use fee on all groundwater withdrawals with all revenue allocated to the protection and restoration of Florida's waters.

Successful implementation of a comprehensive springs protection and restoration effort is dependent upon funding from the Florida Legislature and local governments.

THE MOST ABUNDANT CONCENTRATIONS OF SPRINGS IN THE WORLD ARE LOCATED IN NORTHERN AND CENTRAL FLORIDA. WAKULLA SPRINGS, JUST OUTSIDE OF TALLAHASSEE, CLAIMS THE DISTINCTION OF BEING THE LARGEST AND DEEPEST SPRING ON THE PLANET.



Photo by Mark Long

SPRING FLOW IS DIRECTLY RELATED TO THE HEALTH OF A SPRING'S ECOSYSTEMS AS WELL AS A GOOD INDICATOR OF THE AMOUNT OF WATER IN THE AQUIFER. FANNING SPRINGS, FORMERLY A FIRST MAGNITUDE SPRING, IS NOW A SECOND.

much-needed attention on protecting our springs, we will be taking an important step towards preserving our most critical resource—water—for our families and for future generations.



Photo by Mark Long

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EVERGLADES

RESTORE THE RIVER OF GRASS

The Everglades is the lifeline of South Florida's freshwater supply and a worldwide treasure that we have been entrusted to protect.

The greater Everglades ecosystem encompasses nearly 3 million acres of Florida's landscape, flowing from the Kissimmee Chain of Lakes, into Lake Okeechobee and down to the Florida Keys. It supplies nearly a third of our state's water supply needs and is home to iconic wildlife like the Florida panther, roseate spoonbill and American crocodile.

The Everglades is the only place in the world like it. However, more than 100 years of digging canals, building dams, and development have drained natural wetlands and destroyed the flow of the River of Grass. Today, less than half of the original Everglades remain. Florida has lost healthy wetlands that once stored and cleaned excess water for use during Florida's dry season and now struggles with alternating years of costly water shortages and excesses

that threaten our communities. Meanwhile agricultural pollution, like phosphorus found in fertilizers, have continued to flow into the River of Grass, disrupting the natural balance and leading to toxic mercury in our fish, birds, reptiles, and mammals.

Restoring the River of Grass is a prudent approach to support Florida's tourism, agricultural and real estate economy, and necessary in order to safeguard freshwater supplies for more than 7 million Floridians who rely on the Everglades for their drinking water. Our \$880-million-dollar recreational fishing industry, which makes Florida the fishing capital of the world, depends on the health of the Everglades. Every dollar spent on Everglades restoration generates a four-dollar return in Florida's economy¹ and creates an opportunity to uphold a legacy

of fishing, kayaking, and hiking traditions for future generations of Florida families.

Now, we are at the midway point since the historic Comprehensive Everglades Restoration Plan ("CERP") passed in 2000. While much progress has been made, bureaucratic and funding delays have hindered restoration projects and the ecosystem continues to decline, causing ecological and economic calamity. Heavy heavy rainfall during the "lost summer" of 2013 devastated Martin and Lee Counties as harmful discharges from Lake Okeechobee polluted the Caloosahatchee and St. Lucie Rivers. In 2015, drought conditions and the lack of freshwater flow led to record-high temperatures and salinities in Florida Bay and parched Everglades National Park, resulting in fish kills that will have ripple effects through the dry season throughout the Florida Keys.



**SNOOK, TARPON, SEATROUT,
MANGROVE SNAPPER, AND
SPINY LOBSTER ARE AMONG
22 COMMERCIAL OR
RECREATIONALLY HARVESTED
SPECIES THAT DEPEND ON
FLORIDA BAY**

Photo by David Scarola



FLORIDA CONSERVATION VOTERS EDUCATION FUND

To ensure critical infrastructure can be built to restore the Everglades' clean freshwater flow all the way into Florida Bay, policymakers can:

- establish a dedicated funding stream to expedite critical Everglades restoration projects like the Caloosahatchee C-43 Reservoir, the C-44 Reservoir, and the Central Everglades Planning Project;
- enact and enforce strong pollution limits that safeguard Florida's public water resources from degradation;
- evaluate storage opportunities to protect Caloosahatchee and St. Lucie estuaries from Lake Okeechobee discharges while providing vital flow to Everglades National Park and Florida Bay.

THE EVERGLADES SPANS 3 MILLION ACRES, REACHING FROM THE KISSIMMEE RIVER TO FLORIDA BAY, AND IS HOME TO 67 THREATENED OR ENDANGERED SPECIES.



Photo by Alan Walters

ONE OUT OF EVERY THREE FLORIDIANS (7 MILLION PEOPLE) RELIES ON THE EVERGLADES FOR THEIR WATER SUPPLY.



The Everglades is the lifeline of Florida's freshwater supply and a worldwide treasure that we've been entrusted to protect. The actions taken by policymakers today will determine the vitality of the Everglades and the legacy we leave for future generations.

¹ Measuring the Economic Benefits of America's Everglades Restoration, Mather Economics, Roswell, GA. Bobby McCormick, Ph.D., Principal Investigator. Study Prepared for the Everglades Foundation.

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FRACKING

SAFEGUARD OUR WATER AND PUBLIC HEALTH

Conventional oil extraction has occurred in Florida for decades. However, we are now seeing the use of unconventional extraction techniques, which pose additional risks to our state's water supplies.

What is fracking?

These oil well stimulation operations involve the injection of potentially hazardous chemicals into an oil or gas well to dissolve or fracture oil-bearing rock. Well stimulation operations include hydraulic fracturing, acid fracturing, and acid stimulation to enhance oil production. The use of these techniques introduces a risk of water depletion and contamination. Oil well stimulations use vast amounts of freshwater: just one fracking operation in South Florida is currently permitted to use 280 million of gallons of water a year from a prime potable water supply source.¹ Additionally, the transport, storage, and injection of potentially hazardous chemicals may result in spills or leaks, which can contaminate drinking water resources. Ninety percent of Floridians rely on groundwater for clean drinking water supplies.

Outdated oil and gas laws

Florida's oil and gas laws are outdated and do not currently regulate fracking. Under current law, well operators need only notify the Department of Environmental Protection of their plans to use fracking. No permits for fracking are required and often, details of the operation including chemicals used, can be withheld from

the public as a "trade secret." The driller unilaterally decides what is "trade secret" without independent evaluation. This allows for the misuse of trade secret protections and leaves local governments and the public in the dark.

Public health and safety

When local governments are not provided a list of the chemicals used, they cannot meet their responsibilities to provide proper medical and fire emergency response. For instance, certain chemicals may require specialized extinguishing agents,

which response teams must have on hand in the event of an emergency.

Little to no Florida-specific science

While literature is available on well stimulation elsewhere in the United States, these techniques have not been thoroughly evaluated in Florida.

Without Florida-specific science to show how fracking and other unconventional well stimulation treatments can be safely used, policy should at a minimum suspend and study all well stimulation. It is important to include all stimulation that dissolves, fractures, or incidentally fractures rock underground since all present the same risks of water supply depletion, contamination, and other negative environmental and public safety effects.



FRACKING USES VAST AMOUNTS OF FRESHWATER WITH ONE OPERATION IN SOUTH FLORIDA PERMITTED TO USE 280 MILLION GALLONS OF WATER A YEAR FROM A PRIME POTABLE WATER SUPPLY SOURCE ¹

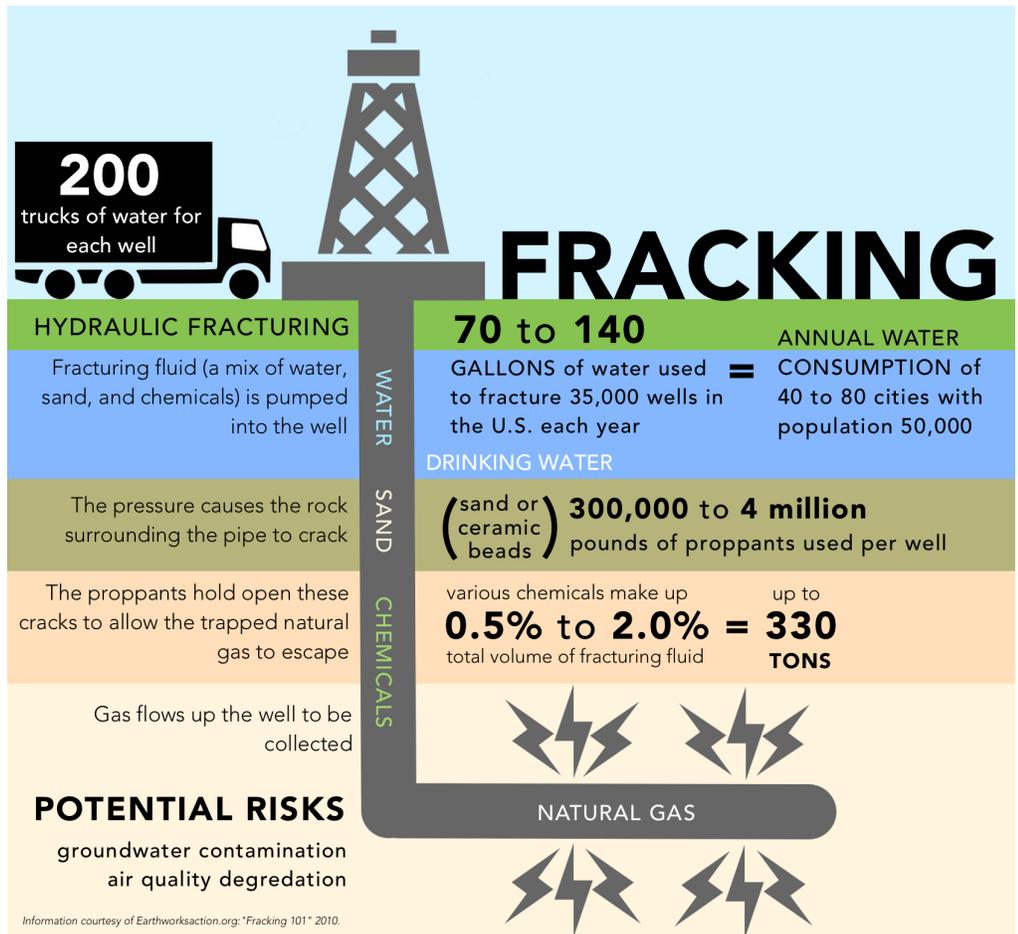
Photo by AstronomyGal



To protect our water supplies and safeguard public health from the serious risks involved in fracking, policymakers can:

- immediately suspend and study all well stimulation techniques, including dissolving techniques and operations which “incidentally fractures the formation;”
- require a comprehensive study of all oil and gas well stimulation techniques that addresses all pathways for potential groundwater contamination, including improperly plugged and abandoned wells nearby;
- prevent waste and depletion of potable freshwater supply sources by prohibiting the use of potable water for well stimulation, thereby protecting our valuable and limited freshwater resources;
- require liability insurance for all oil drilling operations to ensure that funds are available for the cost of site remediation. Such insurance is required in several other states;
- ensure that health professionals and first responders have access to chemical information to handle spills and exposure cases;
- protect home rule of local governments and allow local governments the authority to review drilling proposals and carry out zoning and land-use plans. Local governments must maintain authority to address land-use compatibility issues (light, noise, traffic) related to drilling that are not accounted for in the state review process.

These are the minimum safeguards necessary to protect our water supplies and public health from the risks of fracking.



Home Rule Authority is essential to protecting surface owners

Additionally, policy should not prevent local governments from regulating zoning and land-use impacts of gas and oil regulation. Oil extraction, like many other heavy industrial uses, can result in damage to roadways, risks to public health, and excessive light and noise disturbance. Local governments must retain the authority to address these impacts as needed.



Photo by AstronomyGal

¹ South Florida Water Management District Water Use Permit NO. 11-03415-W; December 17, 2012

Oil Well in LeHigh Acres; <https://www.flickr.com/photos/astronomygal/14505893610/in/photostream/>

Oil Well in LeHigh Acres; <https://www.flickr.com/photos/astronomygal/14505954388/in/photostream/>

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