



Audubon FLORIDA

State of the Everglades

Spring 2016





Dear Friends,

The ecological problems in the Everglades and our coastal waters are not new. Nor are they easy to solve. Audubon Florida is dedicated to making sure restoration is done right, and is a responsible investment focused on wildlife needs. But we need your help.

If the public is united in demanding that decision-makers support the Everglades and the coastal estuaries, we can find and commit to practical solutions.

Thank you for all that you do.

Eric Draper
Executive Director



Photo by: Marjorie Shropshire

Water Quality and Storage Solutions to Ease Florida's Coastal Water Crisis

Florida's coastal waters are experiencing an unprecedented ecological collapse. Fish kills in the Indian River Lagoon, plumes of dark water in the Caloosahatchee and St. Lucie estuaries, and a massive seagrass die-off in Florida Bay are just the latest evidence.

Scientists believe this crisis is due to the mismanagement and over-drainage of freshwater off Florida's mainland combined with increased water pollution from fertilizers, sewage, and septic tanks.

Water management problems start in Lake Okeechobee – the liquid heart of the Everglades. The Lake's optimum water level is between 12.5 and 15.5 feet. Higher levels drown out native plant communities and damage foraging, breeding, and nesting habitats for iconic wildlife such as the endangered Everglade Snail Kite. When water levels are high enough to threaten the safety of the aging Herbert Hoover Dike, the U.S. Army Corps of Engineers discharges water out to the coasts in the Caloosahatchee and St. Lucie estuaries because of the limited options to move water south through the central and southern Everglades. Without the ability to move freshwater south in the historic pattern of the River of Grass, Florida Bay is cut off from a natural source of freshwater and is too salty. High salinity levels in Florida Bay have led to the sea grass die-offs in one of Florida's most beautiful and productive estuaries.

For decades, Everglades advocates have recognized that storing water south of Lake Okeechobee in the Everglades Agricultural Area (EAA) is a crucial element of restoration. Historically, this area would be covered in water up to four feet deep during the wet season, connecting Lake Okeechobee to the Southern Everglades and Florida Bay. But now water in this region is carefully managed to keep farm fields dry in the wet season and to direct water to thirsty crops in the dry season. Additional water storage around the Lake is needed to catch water during wet periods and release it beneficially during drier periods.

Florida's 2016 coastal water crisis renews the urgency to begin planning for the EAA Storage Reservoir, a crucial element of the Comprehensive Everglades Restoration Plan. This project, originally envisioned to store 360,000 acre/feet of water in the EAA, will provide a place to move water currently discharged to sensitive coastal estuaries. And in turn, the reservoir project will provide a source of water in the dry season for the wetlands and marshes of the Southern Everglades and Florida Bay.

But storage is not the only problem. Audubon Florida is advocating for water quality solutions that include a combination of prevention and treatment strategies. Solutions include converting household wastewater from septic tanks to central sewers, restricting the use of fertilizer, and discouraging use of reclaimed water for landscaping that adds nutrients to aquifers and nearby creeks. Better agricultural practices can reduce the nutrients leaving agricultural lands. Manmade marshes or other treatment projects can intercept and remove nutrients from water before it flows into coastal estuaries.



South Florida Wading Bird Report Shows Another Year of Decline

The 2015 South Florida Wading Bird Report, released by the South Florida Water Management District, showed another year of poor nesting efforts for key Everglades indicator species. Compared to the 10-year average, nesting by Wood Storks was down 36%, Snowy Egrets down 51%, and Little Blue Herons down 70%.

Destruction of wetlands and the diversion of freshwater in the Everglades for flood control and water supply have reduced the amount of quality foraging habitat available to wading birds. Restoration efforts are underway that restore degraded habitat and expand the acreage of wetlands to improve conditions for wading birds and other Everglades wildlife. But these projects are not being constructed fast enough to stem the decline of key indicator species. It is necessary to accelerate construction before declines in wading bird populations become irreversible.

Audubon Florida science staff contribute to the report and conclude that this continued population decline for birds like Snowy Egrets and Wood Storks emphasizes the urgent need for Everglades restoration.

Everglades Wading Bird Nesting Decline*



*Compared to the 10-year average



Tamiami Trail 2.6 Mile Bridge on the Way

What better way to celebrate Earth Day than by kicking off an Everglades restoration project? On April 22, Audubon Florida's Everglades Policy Team joined U.S. Department of the Interior Secretary Sally Jewell, members of Florida's Congressional Delegation and other state and federal leaders in Everglades National Park to kick-off the next phase of Tamiami Trail bridging.

Since constructed in 1928, Tamiami Trail has blocked the Everglades' natural north to south flow of water, essentially cutting off the natural "sheetflow" of freshwater that ran from Lake Okeechobee to Everglades National Park and Florida Bay. Through a series of bridges, the National Park Service is planning to elevate a total of 6.5 miles of the roadway to reconnect historic sloughs between Water Conservation Areas to the north of the Trail and Everglades National Park to the south. The sloughs serve as important habitat for wading birds like Wood Storks.

With a one-mile Tamiami Trail bridge completed by the U.S. Army Corps of Engineers in March 2013, more water is now moving into northeast Shark River Slough, where water was historically concentrated as it flowed south in the Park. The next 2.6-mile bridge is the largest in the planned series of bridges and will ultimately provide the greatest ecological connectivity.

Bridging Tamiami Trail has long been recognized as one of the central needs for Everglades restoration and constructing the next bridge will put another piece of the restoration puzzle in place.

Legacy Florida Bill to Boost Everglades Restoration Efforts

The Legacy Florida bill, passed during the 2016 Florida Legislative session, assures dedicated state funding for the Everglades. The law now dedicates the lesser of 25% of funding made available from the Water and Land Legacy Amendment or \$200 million annually to advance Everglades restoration projects. It also dedicates 7.6% of Amendment funding or \$50 million per year for Florida springs restoration. These provisions are for the lifetime of the Amendment. The legislation also dedicates \$5 million annually for the restoration of Lake Apopka through the fiscal year 2025-2026.

From the funding made available, Legacy Florida earmarks \$100 million dollars annually over the next decade for the planning, design, engineering, and construction of the Comprehensive Everglades Restoration Plan (CERP), including the Central Everglades Planning Project (CEPP). The bill also places an emphasis on projects that will reduce harmful discharges from Lake Okeechobee to the St. Lucie or Caloosahatchee estuaries. These projects will improve water quality, increase water storage and restore the historic flow of freshwater from Lake Okeechobee to Florida Bay.

Through our partnership with the Everglades Foundation and other allies working to put this new legislation in place, Audubon Florida has now secured a minimum allocation per year for Everglades restoration projects. While advocacy for the greatest possible funding will continue, this new level of certainty is important for restoration efforts to advance.



Florida Bay: An Ecological Collapse in the Making

Audubon's Everglades scientists are warning of a major ecological collapse in Florida Bay related to a widespread seagrass die-off. Our team has linked the die-off to hypersalinity and high temperatures in the Bay caused by last summer's drought and the lack of freshwater inflow from the upstream Everglades.

Researchers have documented over 22,000 acres of Florida Bay affected by the seagrass die-off; however, the affected area appears to be near twice as large. Sadly, the most impaired areas are located in primary foraging habitat for Great White Herons, Reddish Egrets, Roseate Spoonbills and other iconic Florida species. Seagrass beds are vital to these birds, serving as the prime habitat for the prey fish they depend on to feed themselves and their young.

Getting more freshwater flow into the Bay, which is a major goal of Everglades restoration, can lessen or prevent these types of die-off events. Recent progress on constructing and operating restoration projects has the potential to improve the Bay's conditions.

In January, Audubon Florida Executive Director Eric Draper spoke during a groundbreaking ceremony for the North Detention Area, one of the final remaining components of the C-111 South Dade Project. This important restoration project will reduce seepage of water into urban areas and increase water flows into the wetlands of Everglades National Park. The overall C-111 South Dade project is now 75 percent complete.

Ultimately, the project will work in concert with the Tamiami Trail bridges, C-111 Spreader Canal, and other restoration projects. But without this next component, flooding concerns have prevented the Corps and state water managers from utilizing existing restoration features to flow more water into Florida Bay.

With significant restoration infrastructure in place, water managers have the opportunity to come closer to replicating the natural flow of freshwater to Florida Bay. To truly meet the goals of restoration and prevent future hyper-salinity disasters, the movement of freshwater between Lake Okeechobee and Florida Bay must be re-established, and projects must be operated to achieve maximum ecological benefits.



Dead fish and seagrass on Florida Bay.

A Chance Encounter with a Florida Panther at Audubon's Corkscrew Swamp Sanctuary Goes Viral

Earlier this spring, a guest at Audubon's Corkscrew Swamp Sanctuary happened to record her boardwalk encounter with a surprised young male Florida panther. The entertaining 17-second video was posted online and seen at least 8 million times within a week. While Audubon is glad to support habitat for this iconic endangered species, this story demonstrates a greater conservation challenge.

Just one adult male panther has a home range of up to 200 square miles, nearly ten times the size of Corkscrew Swamp Sanctuary. The ability to sustain a healthy panther population depends on the ability to restore and protect habitat in the surrounding watersheds, much of which is privately owned land.

Audubon Florida and our allies want to incentivize ranchers and farmers to protect and restore large acreages of wetlands and upland panther habitat. Processes such as Habitat Conservation Planning (HCP), which is a federal Endangered Species Act program, seek to balance all the human and habitat issues in a specific area for a sustainable outcome for imperiled species.

Two current examples are the Eastern Collier HCP on 152,000 acres and the Cattle Ranch Panther Stewardship Fee Program, which pays landowners to manage habitat while continuing to ranch. Through these programs, Audubon stays engaged with landowners and federal agencies to produce the most protective and sustainable plan. We firmly believe the HCP process and other incentive-based collaborations hold great promise for the future of panthers around Corkscrew Swamp Sanctuary and throughout Florida.



Panther image captured from the video by Tina Dorschel.

Open House at Audubon's Everglades Science Center a Huge Success

Audubon's Everglades Science Center at Tavernier hosted its first ever Open House on April 20. This event offered the local community an opportunity to tour the facility, meet the science team, and learn more about the Center's storied 78-year history of research in Florida Bay.

Over 300 guests in attendance learned about the data collection and analysis work of Audubon's Everglades Science Team and how this effort is essential to regulate the flow of freshwater through South Florida.

Guests were also reminded that Florida Bay is more fragile than ever. Restoration of the Everglades and Florida Bay will affect other marine environments of the Keys, including coral reefs, as Florida Bay serves as a nursery for many reef fish, game fish, dolphins, and manatees. Data collected by the Everglades Science Team will tell federal and state agencies if they are achieving the anticipated return on restoration investments.



Audubon's Pete Frezza, Jerry Lorenz, and Eric Draper.

