



Audubon | FLORIDA

State of the Everglades

Fall 2023



Snowy Egret.
Photo: Niccole Kowalski/
Audubon Photography Awards

For me, fall colors this year weren't red, yellow, or orange—but pink! The more than 100 American Flamingos blown in after Hurricane Idalia were a colorful reminder of why we work so hard to restore the Everglades. We want iconic wildlife species, like the flamingo, and local communities to have healthy homes in South Florida, now and into the future. To make this future a reality, we celebrate the restoration initiatives going into the ground this year, and push for improved management plans for Lake Okeechobee and the Western Everglades. Wherever you live along the Everglades watershed, we need your voice to keep restoration efforts going.

Sincerely,
Kelly Cox, Director of
Everglades Policy



Photo: SFWMD

Picayune Strand Restoration Approaches the Finish Line

In the mid-20th century, overzealous developers built hundreds of miles of canals and raised roadbeds in an ill-fated scheme to create residential neighborhoods in the Western Everglades. In the process, they drastically altered the natural water levels of the region, destroying habitat for wading birds, fish, and more. Most of the roads and canals in the area formerly known as Southern Golden Gate Estates are in the process of being removed, while three new pump stations are already reducing the flooding risk of nearby communities.

As the first Comprehensive Everglades Restoration Program (CERP) project to begin construction, the Picayune Strand Restoration Project will restore water flows to a portion of Collier County in Southwest Florida.

When complete, the project aims to:

- » Restore flows to nearly 70,000 acres of wetlands and uplands in the Picayune Strand as well as nearby public lands such as the Fakahatchee Strand State Preserve and the Collier-Seminole State Park.
- » Restore the natural water flow to the Ten Thousand Islands National Wildlife Refuge and Rookery Bay Reserve.
- » Recharge the aquifer.
- » Reduce overdrainage.
- » Improve salinity balances in tens of thousands of acres of coastal estuaries.
- » Improve fire management and habitat for threatened species.

Audubon continues to work with the U.S. Army Corps of Engineers and the South Florida Water Management District to promote cutting-edge restoration science and boots-on-the-ground policy knowledge to improve the health of the Everglades for birds and people.



Central Everglades Planning Project North Groundbreaking

In May, the South Florida Water Management District and Army Corps of Engineers hosted a celebratory groundbreaking of the Central Everglades Planning Project (CEPP) North Phase component. CEPP aims to improve clean water flows, including the distribution and timing to the central Everglades and the Water Conservation Areas, to transport more water south to the Everglades and Florida Bay while replenishing aquifers in South Florida.

CEPP North, in western Broward County, consists of seven structures and improves 18 miles of canals currently in operation to restore water levels in the northern part of the central Everglades. CEPP, including the Everglades Agricultural Area Reservoir project, is critical to Everglades restoration and marks a major step forward in our pursuit of a healthy Everglades.



From left to right, Kelly Cox, Audubon Florida; Cara Capp, NPCA; Matt DePaolis, SCCF; Michele Arquette-Palermo, Conservancy of SWFL; and Keely Weyker, Everglades Foundation. Photo: SFWMD



Photo: Holley Short





The Pink Wave: Birds and Hurricanes

For the first time in almost a century, Floridians are seeing a lot of flamingos. Blown in by Hurricane Idalia, American Flamingos have landed as far north as Wisconsin all the way south to Collier County and the Florida Keys, including a record sighting in Alachua County.

Flamingos used to live and breed in Florida. Unfortunately, the 19th century plume trade—when an ounce of feathers was worth more than gold—decimated wading birds in South Florida. Even after legislation and Audubon wardens protected these birds, extensive draining and ditching of the Everglades destroyed their habitat.

Now that restoration momentum is flowing in the River of Grass, we are hopeful that protected wetlands and improved water flow will create enough habitat resources for the Hurricane Idalia flamingos to survive and thrive in the Sunshine State.

WHAT CAN YOU DO TO HELP FLAMINGOS?

-  Learn more—Watch a very special webinar on the pink birds with Jerry Lorenz, PhD, state research director and head of the Everglades Science Center:
<https://www.youtube.com/watch?v=aU59hGoW6gs&t=1647s>
-  Record your sightings on public platforms like eBird, so researchers can track flamingo numbers and locations in the Sunshine State.
-  Advocate for Everglades restoration and efforts to improve water quality. If American Flamingos have healthy places to live and raise their families, their Florida population numbers can improve.
-  Sign up for our Advocate newsletter and we'll keep you up to date on ways to use your voice to protect wading birds like the flamingo: fl.audubon.org/stayintouch

Northern Everglades Restoration Projects Improve Water Quality and Quantity

Lake Okeechobee and the Caloosahatchee and St. Lucie estuaries are depending on both additional water storage and cleaning in the watershed north of the lake to improve lake health and reduce the frequency and magnitude of harmful discharges to the estuaries. This is a tall order but with recent progress on three projects north of Lake Okeechobee, we're gratified to see momentum building for this long-time Audubon priority.



Lake Okeechobee.
Photo: Paul Gray/Audubon Florida



Green Heron.
Photo: John Adolph/
Audubon Photography Awards

LAKE OKEECHOBEE COMPONENT A RESERVOIR

The new Lake Okeechobee Component A Reservoir study, headed up by the SFWMD, is focused on identifying additional above-ground water storage options north of Lake Okeechobee. This is particularly important because this is the largest water storage component envisioned for the area north of the lake. Once complete, water loaded with nutrients can be captured and cleaned before flowing into the lake.

LAKE OKEECHOBEE WATERSHED RESTORATION PROJECT

The Lake Okeechobee Watershed Restoration Project (LOWRP), with leadership from the Army Corps of Engineers, targets north-of-the-lake storage and treatment efforts. In particular, LOWRP seeks to improve water level management in the lake through increased water storage and restoring Kissimmee River floodplain wetlands.

LOWER KISSIMMEE STORMWATER TREATMENT AREA

The Lower Kissimmee Stormwater Treatment Area, a new project led by the SFWMD and private partners, is currently in the conceptual phases. This project would support water quality improvements by addressing nutrient discharges to Lake Okeechobee from areas such as Taylor Creek/Nubbin Slough and well as the Lower Kissimmee and Indian Prairie areas—some of the most polluted areas in the Lake Okeechobee watershed.

Audubon has been a long-standing advocate of north-of-Lake Okeechobee projects, and we are confident that together, these initiatives will improve the health of Lake Okeechobee, the Caloosahatchee and St. Lucie Estuaries, and the Everglades.



New Information Pushes LOSOM Timeline Back

The new Lake Okeechobee System Operating Manual (LOSOM) was originally scheduled for implementation this summer after more than three years of design with feedback from stakeholders. However, new developments have prevented the management schedule from coming online. In particular, the National Marine Fisheries Service initiated consultation with the Army Corps of Engineers under the Endangered Species Act to better examine the potential impacts of the planned lake schedule on listed species—especially marine species in the Caloosahatchee Estuary and the Gulf of Mexico.

Audubon has expressed concerns about the delays and has called for expedient implementation of LOSOM in a recent letter to the Army Corps of Engineers. This new rulebook for operating the lake will supersede the existing lake schedule of 2008 and will take into account new infrastructure that has recently come online, such as the rehabilitation of the Herbert Hoover Dike. The new lake schedule will reduce harmful lake releases to the Northern Estuaries and improve flows to the Everglades and Caloosahatchee Estuary. We look forward to realizing these benefits.

NEW HIRE ANNOUNCEMENT: WELCOME DANIELLE IVEY

Audubon is excited to welcome Danielle Ivey to the Everglades team as our wetland restoration specialist! Ivey brings nearly 20 years of experience working in land management and in rural communities to the Audubon Everglades team. She has built valuable relationships throughout Central Florida through her tenure at various state and local government agencies. We know she will be a wonderful asset to the team!



Ivey will be working to connect landowners with wetland restoration funding in the Northern Everglades, driving resources toward projects that have the ability to store and slow more water on its way from Orlando to Lake Okeechobee. The tool currently identifies and prioritizes locations within the Central Florida Water Initiative region where both surface water storage and groundwater recharge are needed and would have the most beneficial outcomes for restoration projects. Our team will be expanding this work to include the remainder of the Okeechobee watershed and into portions of the St. Johns River Water Management District.

The Central Florida Water Initiative surrounds the greater Orlando area and is a collaborative process between multiple water management districts, the Florida Department of Environmental Protection, Florida Department of Agriculture and Consumer Services, and well as local water supply utilities in Orange, Osceola, Polk, Seminole, and Lake counties. The population in this area is expected to increase by as much as 50% by 2040, indicating an increased demand for water and natural resources. The tool prioritizes areas that can slow the movement of water across the landscape, allowing it to recharge the aquifer and save more water for both wildlife and people.

2023 EVERGLADES RESTORATION: A SNAPSHOT OF COMPREHENSIVE EVERGLADES RESTORATION PLAN PROJECTS AND FUNDING

Everglades Restoration is the largest ecosystem restoration in the world, spanning decades. To keep on track, it's important to measure progress, celebrate successes, and ensure we are meeting and beating deadlines — in funding and implementation. As this year comes to a close, here's an accounting of restoration progress-to-date on both fronts. 2023 has been an amazing year!

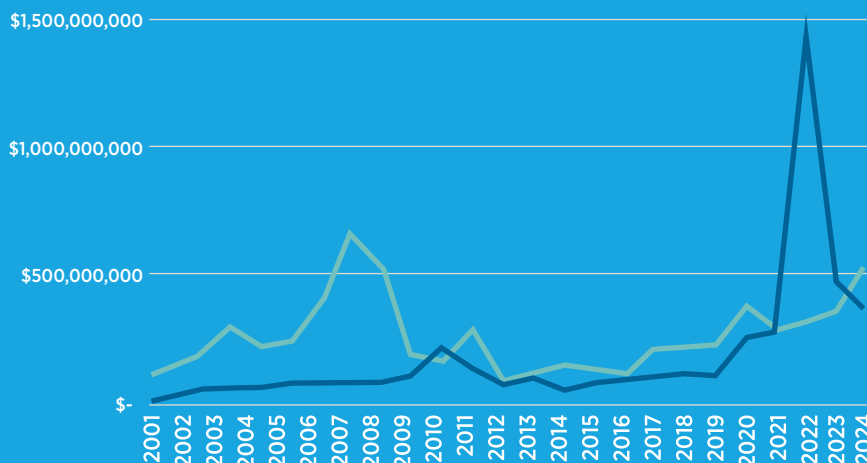
In fall of 2023, the Army Corps of Engineers released the updated Integrated Delivery Schedule (IDS) for Everglades restoration projects. Of the restoration elements in the IDS, 24 were completed before 2023. In 2023, one more project was completed. In 2024, construction is underway for 11 projects.



★ Under Construction in FY 2024
○ Completed

- ★ 1 Caloosahatchee River (C-43) West Basin Storage, 35% complete
- ★ 2 Indian River Lagoon South, 35% complete
- ★ 3 Restoration Strategies, 93% complete
- ★ 4 Central Everglades Planning Project (CEPP), 5% complete
- ★ 5 Everglades Agricultural Area
- ★ 6 CEPP North
- ★ 7 CEPP South
- ★ 8 CEPP New Water
- ★ 9 Picayune Strand Restoration Project, 93% complete
- ★ 10 Tamiami Trail Next Steps, 68% complete
- ★ 11 Biscayne Bay Coastal Wetlands Phase 1, 55% complete
- ★ 12 Broward County Water Preserve Area, 10% complete

- 1 Herbert Hoover Dike
- 2 Lake Park Restoration
- 3 Southern CREW Project Addition
- 4 Lake Trafford Restoration
- 5 Henderson Creek/Belle Meade Restoration
- 6 Kissimmee River Restoration
- 7 Lake Okeechobee Watershed Water Quality Treatment Facilities
- 8 Taylor Creek/Nubbin Slough Storage and Treatment Area
- 9 Modified Holy Land Wildlife Management Area/Water Management Operations
- 10 Modified Rotenberger Wildlife Management Area/Water Management Operations
- 11 C-51 and Southern L-8 Reservoir
- 12 Lake Worth Lagoon Restoration
- 13 Acme Basin B
- 14 Protect and Enhance Existing Wetlands Systems along Lox (Strazzulla Tract)
- 15 Winsberg Farms Wetlands Restoration
- 16 Site 1 Impoundment with ASR
- 17 Melaleuca Eradication and Other Exotic Plants in Davie
- 18 Lower East Coast Water Conservation
- 19 Change Coastal Wellfield Operations
- 20 Central Lakebelt Storage Area
- 21 C-4 Structures
- 22 Modified Water Deliveries to Everglades National Park
- 23 C-111 South Dade
- 24 C-111 Spreader Canal
- 25 Florida Keys Tidal Restoration



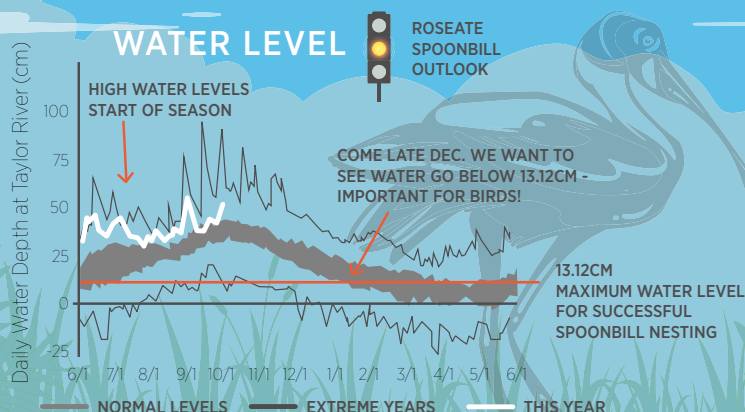
Funding levels from both the State of Florida and the federal government for projects within the Comprehensive Everglades Restoration Program.*

■ State ■ Federal

*Numbers were derived from the Cross-Cut Budget which is a document produced for the South Florida Ecosystem Restoration Task Force by the U.S. Department of the Interior's Office of Everglades Restoration Initiatives.

Audubon | FLORIDA STATE OF THE SLOUGH FALL 2023

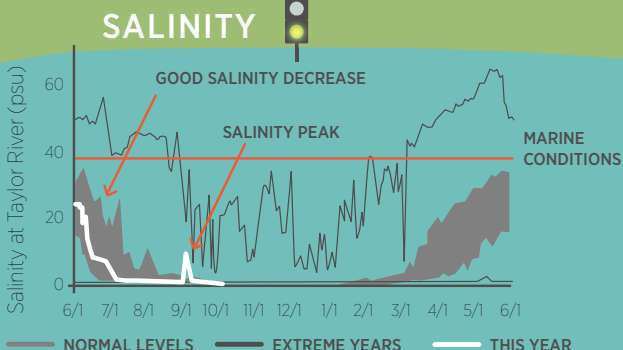
At the southern end of Everglades National Park, a series of sloughs convey freshwater to the Florida Bay estuary. Audubon researchers track these freshwater deliveries (or lack thereof) and their impacts on the ecology of Taylor Slough and the Bay.



Taylor Slough experienced record-high water levels in June and July and continued to have higher-than-normal water levels through October. We are looking for a drawdown of water levels to start in December and continue through April. Water levels need to be at 13 cm or below for more than 50 days for Roseate Spoonbills to have the best chance at successfully raising chicks.

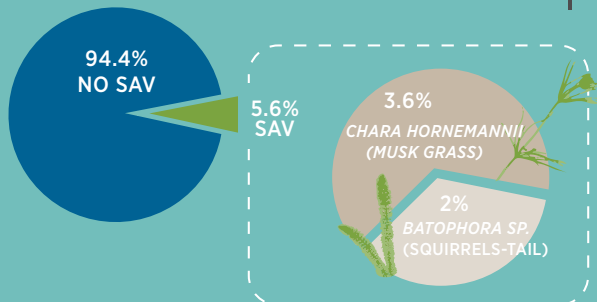
Florida Bay used to receive four times more fresh water from the Everglades ecosystem than it does today. As a result, rainfall makes all the difference between a healthy Bay and a hypersaline one, which can kill seagrass and the species that depend on it. Audubon uses our science to accelerate Everglades restoration projects to deliver much-needed fresh water to Florida Bay.

Taylor Slough



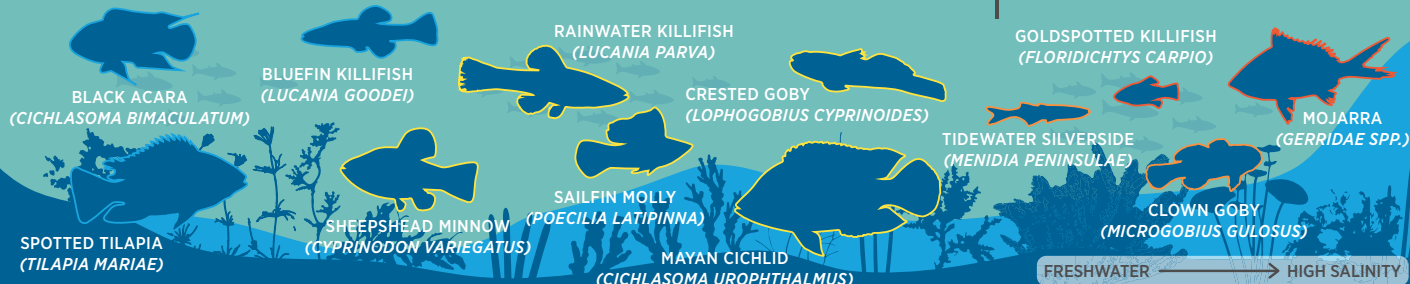
Historically, Taylor Slough was a freshwater ecosystem. This year, the stable decrease in salinity that occurred during June and the overall stability of salinity in this region (despite a salinity spike in September) could lead to more freshwater fish species in the coming months.

SUBMERGED AQUATIC VEGETATION (SAV) COVERAGE



The average plant cover from July through September was 5.6% — a slight increase in coverage in comparison to last year. However, this region is still experiencing very low coverage overall. Because of a stable start to the season — with steadily decreasing salinity and high freshwater levels — we could expect coverages in the slough to increase throughout the year. Due to the peak of salinity in early September it might take a little longer for the plants to establish.

FISH SPECIES CAPTURED THIS YEAR AT TAYLOR SLOUGH



The Everglades Science Center team only caught four fish individuals that could be classified as a freshwater species out of 279 total fish. The fish community structure shows us how the ecosystem is doing. A 1.4% catch of freshwater species is far from hitting the restoration target of having freshwater species make up more than 40% of the catch. However, the fish community for this sample consisted of 77% *Oligohaline*, or very low salinity, which indicates that continuing declines in salinity will tip the balance in favor of freshwater fish dominating the system.

Corkscrew Watershed Initiative Aims to Conserve Heart of the Western Everglades

As development continues to rapidly advance in Southwest Florida, conservation of Western Everglades habitat is more important than ever—particularly in the 70,000-acre Corkscrew Watershed, home of the more than 13,000 acres of Corkscrew Swamp Sanctuary.

A watershed is an area of land that channels rainwater to streams, rivers, and eventually to the ocean or Gulf.

Long-term water data at Corkscrew Swamp Sanctuary shows that what happens outside our protected lands impacts our habitat and wildlife. Development and, in particular, more need for water and increasing channelization of surface water has led to the overdrainage of the Sanctuary. Drier conditions increase wildfire risk, reduce the water reaching the aquifer, change the supply of fresh water that makes it to the Gulf of Mexico, and shrink wildlife habitat for iconic species like the Wood Stork and Florida panther.

Audubon has worked closely with the South Florida Water Management District (SFWMD) to alert them to these water changes (which also extend to Bird Rookery Swamp and other state-owned land in the area). SFWMD has launched the three-year Corkscrew Watershed Initiative, which includes a public planning process with extensive partner and public engagement



Blooming native sunflowers blanket a recently restored wetland at Corkscrew Swamp Sanctuary.

from 2024 through 2026. This will be followed by an effort to identify, evaluate, and model projects and restoration concepts. Restoration work could begin as early as 2026, with Corkscrew canal headwater improvements slated for 2027.

SFWMD and Audubon are focused on the important role the Sanctuary plays for the region's water, as a natural resource in need of protection, and as an integral part of resilience in Southwest Florida as we face the impacts of climate change.

Staff, volunteers, and members plan to step forward in the public engagement period—stay tuned for opportunities to get involved and sign up for the Advocate newsletter so your voice can be heard.

ADVOCATE NEWSLETTER SIGN UP
fl.audubon.org/advocate



BECOME A CLIMATE ADVOCATE

To request a training webinar for your conservation group or chapter, email fl.conservations@audubon.org

DONATE

Audubon's efforts depend on you. Learn more about giving by contacting Victoria Johnston at victoria.johnston@audubon.org

LEARN

Explore everglades conservation and our efforts:
fl.audubon.org/conservation/everglades

 @AudubonFlorida

 @AudubonFL

 @Audubon_FL

FL.Audubon.org



Audubon | FLORIDA

4500 Biscayne Boulevard, Suite 350, Miami, Florida 33137