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"Ding" Darling Wildlife Society – Friends of the Refuge

ADVOCACY IN ACTION

What is the Status of Everglades Restoration?

By Jim Metzler, DDWS Advocacy Committee Co-chair

As explained in [a previous article](#), the process of restoring the Everglades is of significant importance to the J.N. "Ding" Darling National Wildlife Refuge. Everglades restoration is also important to the Everglades Coalition, an organization that just held its 37th annual conference devoted to that topic. Given the importance of Everglades restoration to the Refuge, along with the lengthy amount of time that organizations such as EVCO have been working on the issue, this article will remind us of some of the well-meaning actions taken that resulted in driving the deterioration of the Everglades. The next article will describe some of the progress that has been made to restore as much of the Everglades as possible.

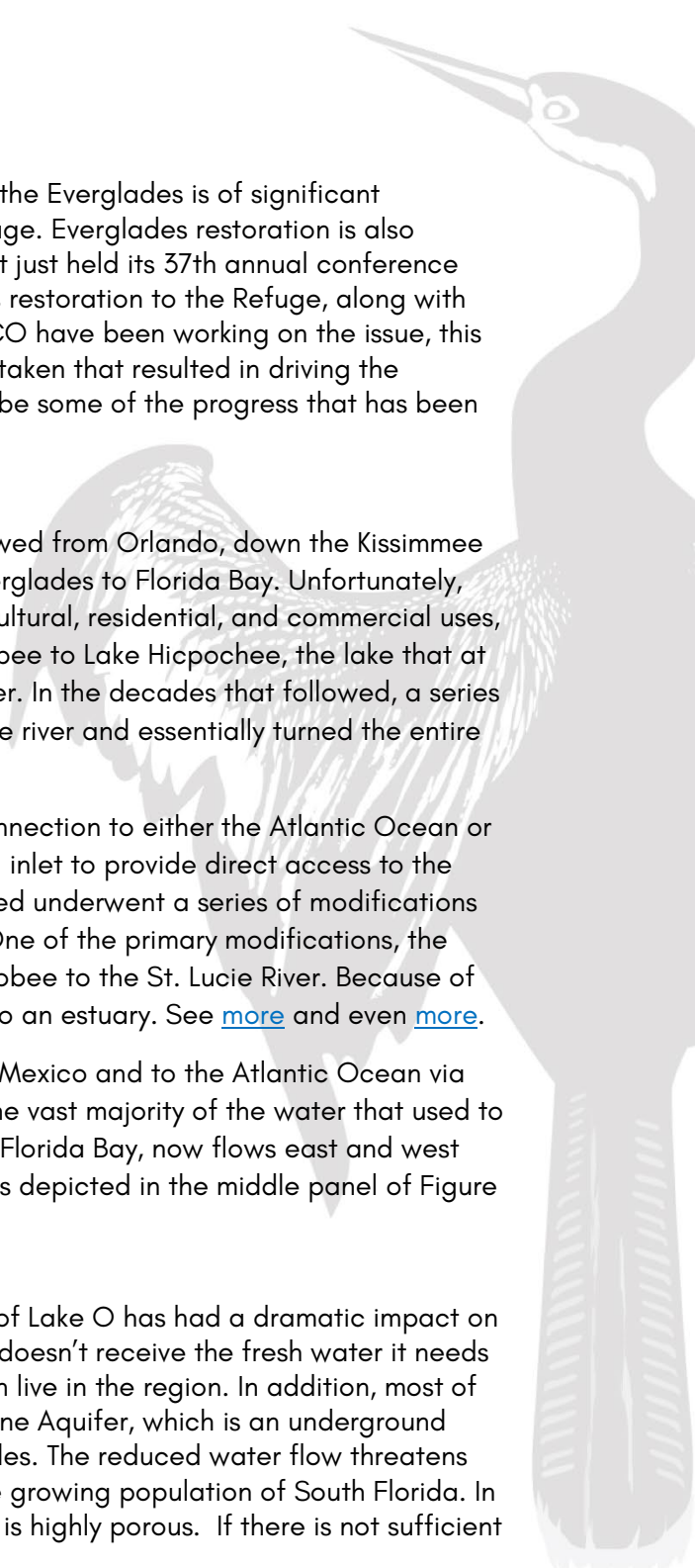
How Did We Get Here?

The left panel in Figure 1 depicts how water historically flowed from Orlando, down the Kissimmee River to Lake Okeechobee, and then down through the Everglades to Florida Bay. Unfortunately, with the goal of draining large areas of wetlands for agricultural, residential, and commercial uses, in the late 1880s a canal was dredged from Lake Okeechobee to Lake Hicpochee, the lake that at the time marked the beginning of the Caloosahatchee River. In the decades that followed, a series of state and federal projects straightened and widened the river and essentially turned the entire Caloosahatchee River into a canal. See [more](#).

Historically, the St. Lucie was a freshwater river with no connection to either the Atlantic Ocean or Lake Okeechobee. In the late 1800s, local residents dug an inlet to provide direct access to the Atlantic Ocean. During the 1900s, the river and its watershed underwent a series of modifications for navigation, flood control, and water supply purposes. One of the primary modifications, the Army Corps built the [C-44 canal](#) connecting Lake Okeechobee to the St. Lucie River. Because of these modifications, the St. Lucie went from being a river to an estuary. See [more](#) and even [more](#).

As a result of connecting Lake Okeechobee to the Gulf of Mexico and to the Atlantic Ocean via the highly modified Caloosahatchee and St. Lucie rivers, the vast majority of the water that used to flow from Orlando to Lake Okeechobee and then south to Florida Bay, now flows east and west once it reaches the lake. This change in the flow of water is depicted in the middle panel of Figure 1.

The reduction in the amount of water that flows south out of Lake O has had a dramatic impact on the Everglades. For example, the fact that the Everglades doesn't receive the fresh water it needs severely reduces the amount of plants and wildlife that can live in the region. In addition, most of the drinking water for South Florida comes from the Biscayne Aquifer, which is an underground river replenished by the flow of water through the Everglades. The reduced water flow threatens the ability of this aquifer to provide sufficient water for the growing population of South Florida. In addition, the Biscayne Aquifer is made of limestone, which is highly porous. If there is not sufficient



fresh water in the aquifer, then it is vulnerable to the saltwater intrusion that is partially driven by rising sea levels. See [more](#).

As will be discussed in the next article, one of the primary goals of Everglades restoration is depicted in the right panel in Figure 1. That goal is to reduce the amount of water that flows east and west out of Lake O and increase the amount of water that flows south out of the lake down through the Everglades and into Florida Bay.

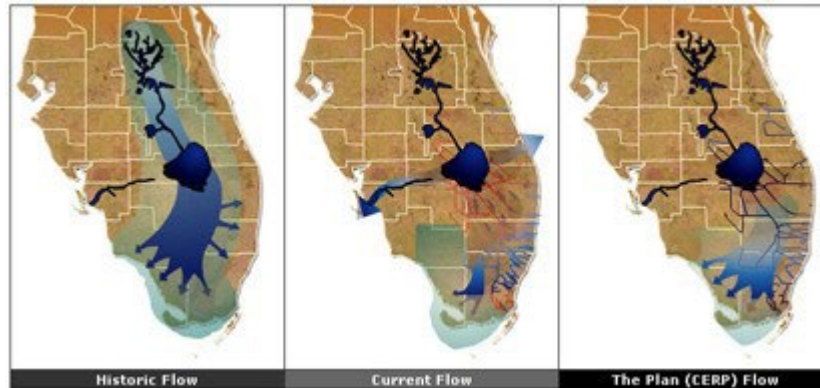


Figure 1: North to South Water Flow in Florida

Image Courtesy of EvergladesPlan.org

Unfortunately, changing the historic flow of water is not the only factor that caused the massive deterioration of the Everglades. For example, in an attempt to support growth, in the early 1900s, the state of Florida constructed a two-lane road from Tampa to Miami called Tamiami Trail. When it opened in 1928, Tamiami Trail was regarded a major feat of engineering. However, it was soon recognized that in addition to supporting growth, the road acted as a dam that blocked water as it attempted to flow through the Everglades and into Florida Bay.

As a result of a major hurricane in 1947, Congress passed the Flood Control Act of 1948 authorizing the first phase of the Central and South Florida (C&SF) Project, a comprehensive plan to provide flood and storm damage reduction and other water control benefits in [Central and South Florida](#). As part of the C&SF project, the United States Congress authorized the channelization of the Kissimmee River. This resulted in the Army Corps straightening and dredging the Kissimmee and shortening its length from 103 miles to just 56 miles.

When rivers such as the Caloosahatchee or the Kissimmee get channelized, it typically has a negative impact on the overall environment. In the case of the Kissimmee River, once it was channelized, 40,000 acres of floodplain dried out, which dramatically impacted the wildlife that used to live in that floodplain. The channelization of the river also dramatically reduced the amount of time it took for water to flow from Orlando to Lake Okeechobee. This meant that in a major rain event, water would accumulate in the lake over a much shorter period of time than it had historically. This often drove the Army Corps to release massive amounts of water down the Caloosahatchee River, which has a negative impact on the health of the river. In addition, while the Kissimmee was not a significant source of

pollution for Lake Okeechobee before channelization, in the 1970s and later the river contributed about 25% of the nitrogen and 20% of the phosphorus flowing into the lake. See [more](#).

In Case You Missed It

The Biden administration recently announced that it would commit more than a billion dollars to Everglades restoration. However, none of those funds are currently designated to support the building of the EAA reservoir, which many people view as the project that will have the most impact on Everglades restoration.

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