

Okeechobee Floodways

In 1928 a hurricane, later nicknamed the “Okeechobee Hurricane”, hit Florida and broke the dams around Lake Okeechobee, flooding South Florida, destroying towns, and killing three thousand people. After assessing the damage, President Hoover created the Okeechobee Flood Control District, which implemented new and sturdier dikes and floodways to prevent the lake water from spilling over.

Under natural conditions, Lake Okeechobee’s water is meant to drain from its south side, which means when the lake drains, it floods South Florida on the way to the ocean. The floodways were installed to avoid repeating this kind of disaster after 1928, but the environmental impacts of the floodways and dikes have been unprecedented and dire¹.

The two man-made rivers used to drain Lake Okeechobee were placed on either side of the lake and are the focal point of many environmental concerns. These rivers carry water from Okeechobee to east and west Florida and harm the ocean in the process. Because Lake Okeechobee is a freshwater lake, the rivers that drain it flush fresh water into the ocean and pollute it with phosphorus runoff. This runoff feeds devastating algal blooms responsible for massive deaths in marine populations².

Not only is the ocean being damaged by Okeechobee, but so is the lake itself. Recently, there has been algae growth in the lake as a result of polluted water being pumped into it during emergency flood situations.³ When South Florida is threatened by a flood, the state pumps the excess water directly into Lake Okeechobee. This water contains harmful pollutants such as phosphorus-rich fertilizers⁴.

These algae blooms are detrimental to lakes and oceans, leading to eutrophication, often called “the death of a lake.”⁵ The algae that forms on top of the water gives off oxygen during the day but takes the oxygen away from the lake at night, slowly killing the marine organisms living in the lake.

The Kissimmee River, which flows from Kissimmee into Lake Okeechobee was also the center of controversy. Dr. Gwyndolyn Crittenden, a professor at the University of Central Florida, participated in a research study on the environmental effects of changes to the Kissimmee River in the 80’s and 90’s. She explained how the Kissimmee River naturally flowed in a winding path into Lake Okeechobee. However, as Florida’s development increased rapidly, the Kissimmee River was artificially made straight and very deep. This brought

¹ Cox News Web. *A Historical Timeline of the Lake Okeechobee Dike*. n.d. 15 November 2017.

² Crittenden, Gwyndolyn. Interview. Savannah Valentine. 23 December 2017.

³ Marcus Stern, Kait Parker, Spencer Wilking. *Toxic Lake: The Untold Story of Lake Okeechobee*. 8 December 2016. 15 November 2017.

⁴ Marcus Stern, Kait Parker, Spencer Wilking. *Toxic Lake: The Untold Story of Lake Okeechobee*. 8 December 2016. 15 November 2017.

⁵ Crittenden, Gwyndolyn. Interview. Savannah Valentine. 23 December 2017.

unforeseen consequences for local wildlife. The shrimp and fish living in the river became extinct as a result of algal blooms wreaking havoc on the food chain.

After these effects became known, the state of Florida restored the Kissimmee River to its natural, winding state and the affected populations of marine life began to recover, but have still not returned to full health⁶.

Not only are marine life and water health seriously impacted by the man-made changes and pollution, but so is Florida's economy. When the rivers drain the polluted water from Okeechobee into the ocean, the water there becomes dark and filled with algae from the toxins. Tourists are wary of the dark water in the floodways and are therefore more hesitant to vacation near these areas⁷. Florida's economy is dependent on tourists enjoying our beaches, which means when vacationers avoid certain beaches, the communities and businesses around those beaches get hurt. In 2013, there was significant pollution in the ocean, discouraging tourists and hurting businesses, who dubbed it "the lost summer." Florida Realtors researched the effect pollution had on the value of homes in Marion County during the lost summer and found that the aggregate value of the homes fell by half a billion dollars because potential buyers were hesitant to buy or invest in home near polluted areas.

Because of the environmental and economic threat posed by improperly draining Lake Okeechobee, Florida Governor Rick Scott declared a State of Emergency for communities near the draining rivers and asked for almost \$2 billion in federal funding to begin Lake Okeechobee dike repairs and for projects that would move more of the water in its natural direction south. Although the ecosystem has already been significantly damaged, this is an important step in addressing the disastrous impact these man-made floodways have had on Florida's water, fish, and tourism industries.

⁶ Crittenden, Gwyndolyn. Interview. Savannah Valentine. 23 December 2017.

⁷ Marcus Stern, Kait Parker, Spencer Wilking. *Toxic Lake: The Untold Story of Lake Okeechobee*. 8 December 2016. 15 November 2017.

