

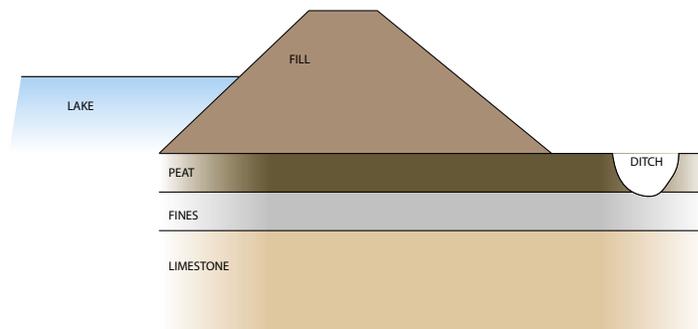
Herbert Hoover Dike

Facts & Information

Lake Okeechobee is the nation's second largest freshwater lake and the largest lake in Florida. The lake is known for its beauty, and for being home to people, fish, wildlife and plants, many unique to the lake area. In 1915, local governments and residents started building up the lake's natural embankments, with sand, shell, muck and marl. Then, in the 1920's, disaster struck when two hurricanes swept the area. Water from the lake flooded surrounding towns, and over 2600 people lost their lives. To prevent overtopping, and to protect the thousands of people who live, farm, and work in the communities around the lake, the U.S. Army Corps of Engineers began construction on the Herbert Hoover Dike in the 1930s.

The Dike

The dike was built with gravel, rock, limestone, sand and shell that was dredged from the lake bottom – a design that was state-of-the-art in



Cross Section of materials used in the Dike



Herbert Hoover Dike and Lake Okeechobee

Herbert Hoover Dike Facts & Information

the 1930s. These natural materials allow water to trickle through from time to time. This is called seepage. When the water level in the lake is too high, the water pressure causes extra seepage and erosion. When the water level is too low, the soil dries out and that changes its structure. Neither extreme is good, so we monitor the lake levels closely.

After a storm, we check the dike as soon as the weather allows. Sandbags and repair materials are stored at various locations around the dike. If a leak is discovered, we use these materials to strengthen weak areas quickly.

Keeping Control

All year long, every day, teams of professional engineers and scientists work hard to make sure the lake's water level is safe. Especially during the rainy season, the Corps and the South Florida Water Management District (SFWMD) release water from the lake into the St. Lucie Canal and Caloosahatchee River to keep safe and healthy water levels. We know that the dike is safer when the water in the lake is kept at 18.5 feet or below.

Because there is no way to release large quantities of water from the lake just before a big storm hits, we follow a schedule to release smaller amounts of water all through the rainy season. This helps to keep the environment healthy, and also helps us keep the lake's water at a safer level so that the dike can do its job and provide protection for the lake's surrounding communities.

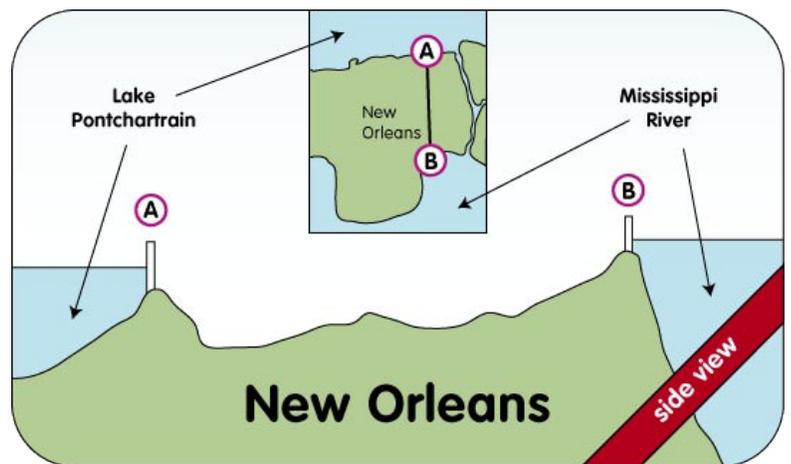
Can a New Orleans size flood happen here?

Many people have wondered if a New Orleans-like flood can happen here.

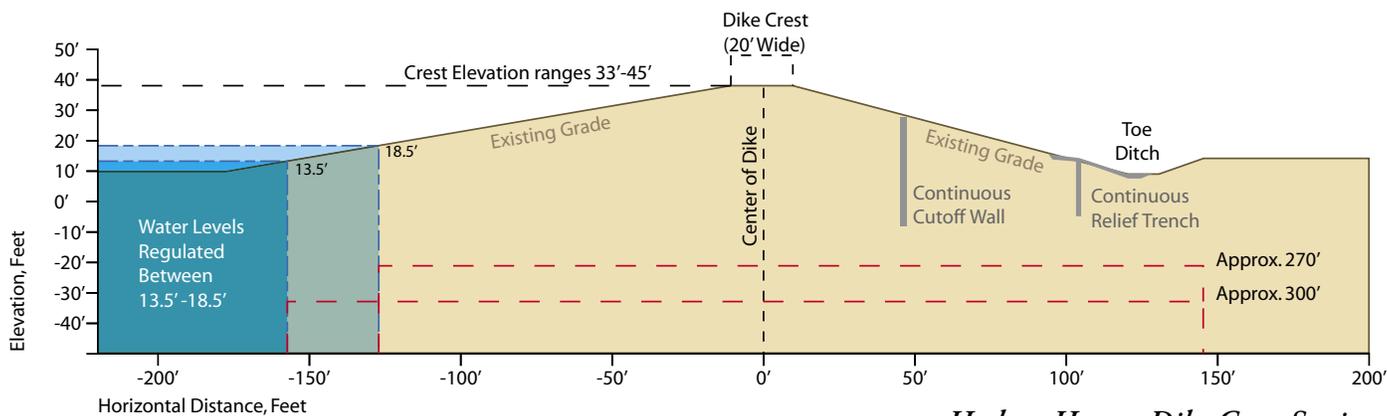
No. A break in the Herbert Hoover Dike would be very different from what happened in New Orleans following Hurricane Katrina. The biggest difference is the ground surface surrounding Lake Okeechobee is flat and above sea level. New Orleans is below sea level and is situated like a bowl between two bodies of water.

The Herbert Hoover Dike is an earthen embankment. It's not a wall. The base of the dike is 300 feet wide, the length of one football field. When the lake's water level is kept at around 18.5 feet, there is still space for another 14-27 feet above that before water goes over the top. Even then, water would have to go across the 20-foot wide top of the dike before spilling down over the other side.

If water broke through the dike, the water would run out of the lake and spread out over a very large area, making any resulting flood much shallower than the flooding that occurred in New Orleans, a city below sea level. Now remember, the Corps and SFWMD regulate the water levels of Lake Okeechobee and we lower the level during the wet hurricane season – New Orleans could not control surrounding water levels, which were being fed by Lake Pontchartrain and the Gulf of Mexico, an endless source of water. While New Orleans is located on the coastline, Lake Okeechobee is located about 30 miles inland. Hurricanes lose some of their intensity as they cross land, so we would not have the same type of wave action and hurricane force winds that New Orleans experienced. Lake



New Orleans Dike Cross Section



Okeechobee will, instead, “slosh” – where winds push water to one side of the lake – just like if you sit down in a tub of water.

Making it Better and Stronger

We know that we can make the Herbert Hoover Dike better and stronger, and no time is being wasted as we do so. There are eight areas of the Herbert Hoover Dike where improvements, such as a cutoff wall, can be made to hold back the material that seeps through and erodes the dike. The first part of this project consists of 4.6 miles from Port Mayaca, south along the lake to Sand Cut. Construction in this area is scheduled to begin before December 31, 2005.

The U.S. Army Corps of Engineers and the South Florida Water Management District are committed to maintaining Florida’s fragile balance of the needs of people and business, while conserving the state’s unique wildlife and water environments. Herbert Hoover Dike plays an important role in helping us to keep that promise.



Gravel being placed in relief trench.



Locations of HHD rehabilitation projects



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Canal Point