Safety concerns linger as Lake Okeechobee dike fix drags on

By Andy Reid, Sun Sentinel

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After five years of construction costing more than $360 million, safety concerns remain about Lake Okeechobee's ailing dike heading into the peak of another hurricane season.

The lake's more than 70-year-old Herbert Hoover Dike has been considered one of the nation's most at-risk of failure, with those deficiencies gaining heightened scrutiny after the New Orleans levees failed following Hurricane Katrina.

The Army Corps of Engineers contends that the work so far has beefed up a key portion of Lake Okeechobee's dike, improving its ability to protect South Florida from flooding. But the dike is still considered an "unacceptable risk," according to the corps. It is among those with the lowest ranking on a federal rating system that evaluates flood-control structures across the country.

Army Corps officials acknowledge that the work on the Lake Okeechobee dike remains far from finished and that the solution for the ultimate fix has yet to be identified.

A study aimed at determining how to proceed with dike repairs is expected to last until 2014.

"We are incrementally reducing risk and improving public safety," corps spokesman John Campbell said. "There's a lot of work that is going to have to be done ... We are still defining what the end state looks Like." That's not good enough, according to local officials, who say the delayed fix for Lake Okeechobee's dike has taken too long — threatening public safety and hurting the ability to store water in the lake that is the primary backup for South Florida water supplies.

"It's something that goes on and on and does not get fixed," said Palm Beach County Administrator Burt Aaronson. "They are not dedicating enough manpower or dollars to it."

The 143-mile-long dike corrals lake water that once naturally overlapped the southern banks, sending sheets of water flowing south to hydrate the Everglades.

Decades of farming and development led to the lake's dike and a vast system of South Florida draining canals and levees, which drain vast swaths of former Everglades land and guard against flooding.

The dike's initial construction was prompted by devastating hurricanes in 1926 and 1928 that led to massive flooding and deaths. More severe flooding from hurricanes in 1947 and 1948 led to an expansion that completely encircled Lake Okeechobee.

The dike, about 30 feet tall in some areas, essentially converted Lake Okeechobee into South Florida's largest retention pond.

The Army Corps of Engineers ultimately controls how much lake water flows where. If lake levels get too high, threatening the integrity of the dike, the corps dumps hundreds of billions of gallons of water out to sea — often with damaging environmental effects on coastal estuaries.

After the levees in New Orleans failed during Hurricane Katrina, officials stepped up federal scrutiny of dikes and levees across the country.

A 2006 engineering report commissioned by the South Florida Water Management District heightened safety concerns about the Lake Okeechobee dike with its finding that the dike "poses a grave and imminent danger to the people and the environment of South Florida."

The Army Corps' repair plan since 2007 has targeted a 21-mile section that stretches from Port Mayaca to Belle Glade, which is the portion of the dike considered most at risk of a breach.

earthen dike. Since 2007, contractors have completed just 7 miles of that wall. Another 13 miles of wall

The goal is to reduce and redirect the amount of water seeping through the dike to avoid erosion, which causes cavities in the dike that can collapse and lead to flooding.

The thrust of the work has been building a "cutoff wall" extending deep through the middle of the

is installed and nearly complete, with some portions still undergoing testing or other monitoring, according to the corps.

Army Corps officials say they are on track to complete the entire 21-mile wall section by the end of 2013 as planned. It's costing taxpayers about $10 million a mile to get the wall done.

"We have made some major steps," said Tim Willadsen, Army Corps project manager for the dike repair project. "We have got a lot of work that is in the pipeline … We are addressing it as quickly as we can."

Earlier repair plans called for supplementing the wall with berms and other improvements to the outside base of the dike, aimed at increasing stability. Much of that work has yet to be accomplished because of hurdles acquiring more land along the dike.

Homes, businesses, government buildings, parks, rail lines and other obstacles sit right beside the dike in some areas. The Army Corps in recent years has been exploring dike improvement alternatives that could avoid the disruption of gobbling up more land.

"It would have wiped us out," Pahokee Mayor J.P. Sasser said about the possibility of dike construction taking up city land. "It would have eliminated a large portion of Pahokee's tax base because we are literally right against the base of the levee."