

PALM BEACH COUNTY
BOARD OF COUNTY COMMISSIONERS
AGENDA ITEM SUMMARY

Agenda Item #:

5A-1

Meeting Date: August 16, 2016 () Consent (X) Regular
() Ordinance () Public Hearing
Department
Submitted By: Legislative Affairs
Submitted For: Administration

I. EXECUTIVE BRIEF

Motion and Title: Staff recommends motion to adopt: a Resolution of the Board of County Commissioners of Palm Beach County, Florida, urging Congress to provide the necessary funding to complete the Herbert Hoover Dike rehabilitation and urging the Army Corps of Engineers to expedite its repairs to the dike to ensure the public health, safety, and welfare of the cities surrounding Lake Okeechobee and the Corps' ability to manage the lake's water level in a way that will significantly reduce the impact to the coastal estuaries.

Summary: The El Nino weather pattern that dominated South Florida from December through March brought record dry-season rainfall to many areas and caused the water level in Lake Okeechobee and the Everglades to rise well above the United States Army Corps of Engineers' Regulation Schedules for those areas. As a result, the coastal estuaries were forced to endure high releases of water from Lake Okeechobee for several months. The higher Lake stage also impacts the public health, safety and welfare of residents in Palm Beach County, including the Cities of Belle Glade, Pahokee and South Bay because of the pressure on the Herbert Hoover Dike. The problem is exacerbated by the Interim Lake Okeechobee Operating Rules required while the Herbert Hoover Dike undergoes its first major rehabilitation in 75 years. Countywide (DW)

Background: On December 24, 2015, the U.S. Army Corps of Engineers released for public comment its long awaited Herbert Hoover Dike Dam Safety Modification Study and Environmental Impact Statement. This report presents the engineering design and cost estimate to complete the final rehabilitation of the HHD necessary to bring it to the safety designation appropriate for the protection of the western Palm Beach County communities surrounding Lake Okeechobee. On February 8, 2016, the Board of County Commissioners submitted an official comment letter to the Corps.

Although the final report and decision document has not been released by the Corps, we now have a clear picture of the effort needed to complete the repairs, and the time frame that can be achieved if Congress continues to provide the funding. It is essential at this stage that the momentum the Corps has achieved through their diligence over the last ten years is not lost.

Attachments:

- 1. Resolution
- 2. Herbert Hoover Dike Fact Sheet by the Corps of Engineers dated spring 2016

Recommended by: _____
Department Director Date

Approved by: 244 J. Guler 6/22/16
Assistant County Administrator Date

II. FISCAL IMPACT ANALYSIS

A. Five Year Summary of Fiscal Impact:

Fiscal Years	2016	2017	2018	2019	2020
Capital Expenditures	_____	_____	_____	_____	_____
Operating Costs	_____	_____	_____	_____	_____
External Revenues	_____	_____	_____	_____	_____
Program Income (County)	_____	_____	_____	_____	_____
In-Kind Match (County)	_____	_____	_____	_____	_____
NET FISCAL IMPACT	*_____	_____	_____	_____	_____

ADDITIONAL FTE
POSITIONS (Cumulative)

Is Item Included in Current Budget? Yes_____No_____
Budget Account No.: Fund_____Agency_____Org_____Object_____Program Code_____

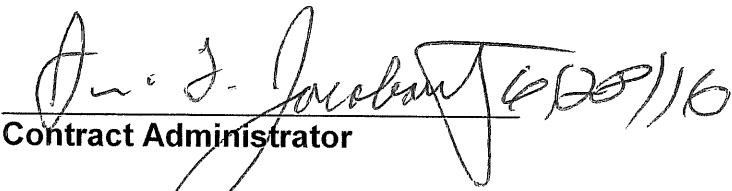
B. Recommended Sources of Funds/Summary of Fiscal Impact
* There is no fiscal impact associated with this item.

C. Department Fiscal Review:

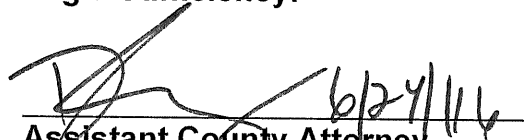
III. REVIEW COMMENTS

A. OFMB Fiscal and /or Contract Administrator Comments:


OFMB ET 6/24 2016


Contract Administrator

B. Legal Sufficiency:


Assistant County Attorney 6/27/16

C. Other Department Review:

Department Director

Resolution No. 2016 - _____

A RESOLUTION OF THE BOARD OF COUNTY COMMISSIONERS OF PALM BEACH COUNTY, FLORIDA, URGING CONGRESS TO PROVIDE THE NECESSARY FUNDING TO COMPLETE THE HERBERT HOOVER DIKE REHABILITATION AND URGING THE ARMY CORPS OF ENGINEERS TO EXPEDITE ITS REPAIRS TO THE DIKE TO ENSURE THE PUBLIC HEALTH, SAFETY, AND WELFARE OF THE CITIES SURROUNDING LAKE OKEECHOBEE AND THE CORPS' ABILITY TO MANAGE THE LAKE'S WATER LEVEL IN A WAY THAT WILL SIGNIFICANTLY REDUCE THE IMPACT TO THE COASTAL ESTUARIES

WHEREAS, six months ago the Army Corps of Engineers released its Draft Herbert Hoover Dike Dam Safety Modification Study and Environmental Impact Statement providing the final engineering plan and budget necessary to complete the rehabilitation of the Herbert Hoover Dike; and

WHEREAS, the timely completion of the repairs to the HHD is dependent on continued, uninterrupted funding from Congress; and

WHEREAS, the availability of the final design for the rehabilitation effort now makes it possible to reduce the lengthy time frame for the completion of the work by increasing the federal funding made available to the Corps of Engineers; and

WHEREAS, the acceleration of the rehabilitation to the Dike is not only critical for the public health, safety, welfare, and economies of the Cities of Belle Glade, Pahokee and South Bay surrounding Lake Okeechobee but will also allow more flexible management of high water levels in Lake Okeechobee to reduce the discharges to coastal estuaries; and

WHEREAS, the State of Florida, Palm Beach County, and the Cities of Belle Glade, Pahokee, and South Bay have significant public infrastructure located and maintained in the Lakeside region of Palm Beach County that is at risk until the repairs are completed.

NOW THEREFORE BE IT RESOLVED BY THE BOARD OF COUNTY COMMISSIONERS OF PALM BEACH COUNTY THAT:

1. The Palm Beach County Board of County Commissioners urges the United States Congress to provide the necessary funding to complete the rehabilitation of the Herbert Hoover Dike.
2. The Palm Beach County Board of County Commissioners urges the United States Army Corps of Engineers to expedite the repairs to the Herbert Hoover Dike for the public health, safety and welfare of the Cities of Belle Glade, Pahokee and South Bay surrounding Lake Okeechobee and to minimize

the environmental and economic impacts resulting from the interim operational schedule now in place.

3. Copies of this Resolution will be forwarded to the Florida Congressional Delegation and the United States Army Corps of Engineers.

The foregoing resolution was offered by Commissioner _____, who moved its adoption. The motion was seconded by Commissioner _____, and upon being put to a vote, the vote was as follows:

Commissioner Mary Lou Berger, Mayor	-	_____
Commissioner Hal R. Valeche, Vice Mayor	-	_____
Commissioner Paulette Burdick	-	_____
Commissioner Shelley Vana	-	_____
Commissioner Steven L. Abrams	-	_____
Commissioner Melissa McKinlay	-	_____
Commissioner Priscilla A. Taylor	-	_____

The Mayor thereupon declared the Resolution duly passed and adopted this _____ day of _____, 2016.

ATTEST:
CLERK & COMPTROLLER
Sharon R. Bock, Clerk and Comptroller

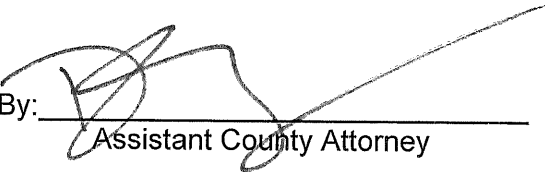
Palm Beach County, Florida by its
Board of County Commissioners

By: _____
Deputy Clerk

By: _____
Mayor

Approved as to Form and Legal
Sufficiency:

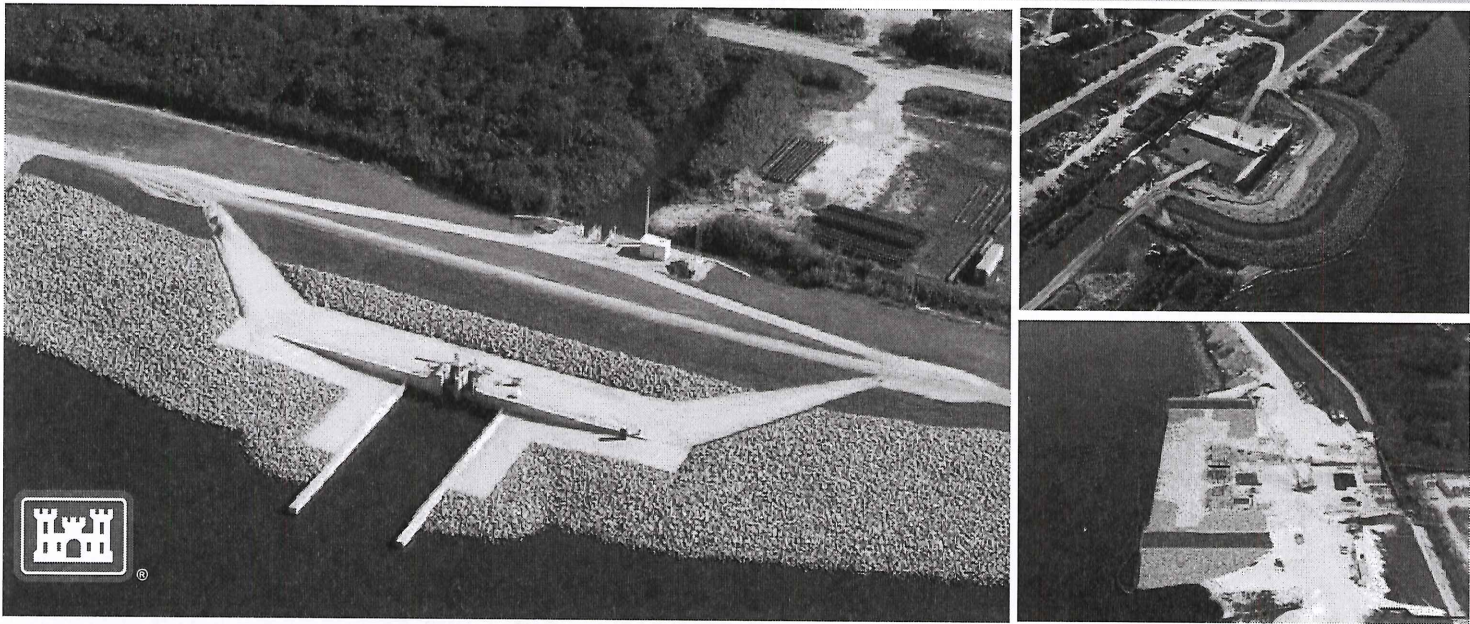
Approved as to Content:

By:  _____
Assistant County Attorney

By:  _____
Assistant County Administrator

HERBERT HOOVER DIKE | REHABILITATION

PROJECT UPDATE



SPRING 2016

The U.S. Army Corps of Engineers continues work on Herbert Hoover Dike (HHD), the 143-mile structure surrounding Lake Okeechobee. Since 2007, the Corps has made a significant investment, over \$500 million, in projects designed to reduce the risk of catastrophic failure of the aging structure.

THE DIKE

The Corps built the dike with gravel, rock, limestone, sand and shell. These natural materials allow water to flow through at times. This is a normal process called seepage.

However, when the water level in the lake is too high, the resulting pressure causes extra seepage that can lead to internal erosion, or piping. When the water level is too low, the soil dries out which could result in the development of cracks in the foundation. Neither extreme is good, so engineers closely monitor the lake levels and the dike.

HHD CULVERTS REMOVALS OR REPLACEMENTS

With adoption of the overall systems approach, old water control structures along the HHD, commonly known as “culverts,” became the highest priority to reduce risk. The culverts date back to the 1930s. From a structural integrity perspective, the culverts pose a risk of failure due to the loss of embankment material into and along the structures.

The Corps will replace 26 culverts within the HHD system. Eighteen structures are currently under contract. The remaining eight structures are expected to have contracts in place over the next four years. The Corps anticipates construction on culverts to continue through 2022.

CUTOFF WALL CONSTRUCTION

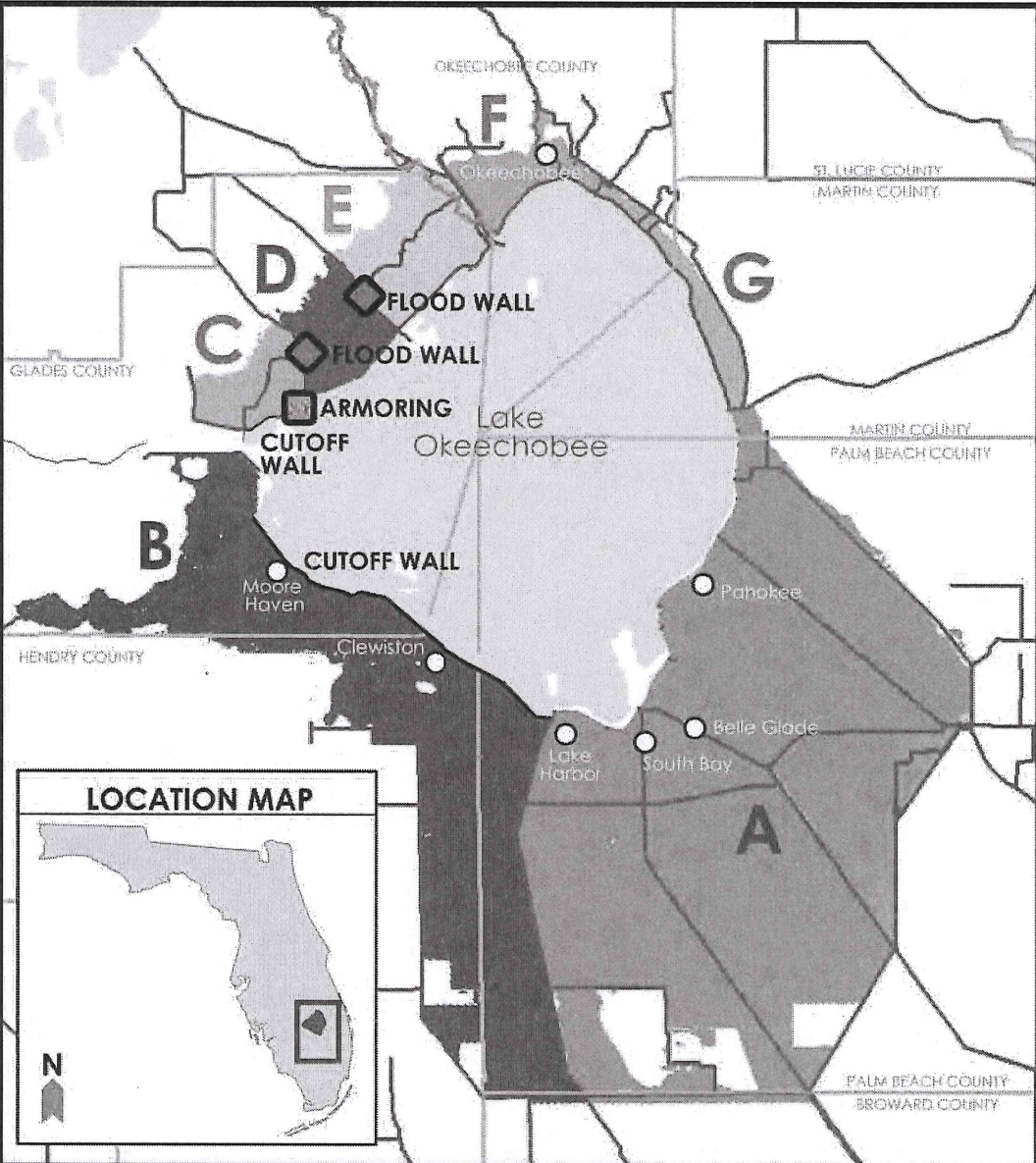
The Corps determined construction of a partial cutoff wall was the best method to repair 22 miles of embankment between Belle Glade and Port Mayaca identified as Reach 1 in a 2000 report. The partial cutoff wall helps reduce the risk of failure by eliminating existing piping and preventing additional internal erosion through the dike and foundation. The Corps completed the initial contracts associated with cutoff wall construction in Reach 1 from 2007-2013, investing an estimated \$220 million in repairs.

DAM SAFETY MODIFICATION STUDY

While the initial cutoff wall was under construction, the Corps began looking at the entire dike as a single flood-control system, utilizing a process that prioritized actions designed to lower the risk across the entire project. Work began on a Dam Safety Modification Study (DSMS) for HHD, to support this effort.

In late 2015, the Corps released a draft summary of a Dam Safety Modification Report and draft environmental impact statement. The draft document provides an outline of a tentatively selected plan (more details on back) that includes an approach to implement features based on priority, consistent with a goal of reducing risk as quickly as possible. All features currently that have previously be constructed support the goal of this report.

HERBERT HOOVER DIKE | REHABILITATION



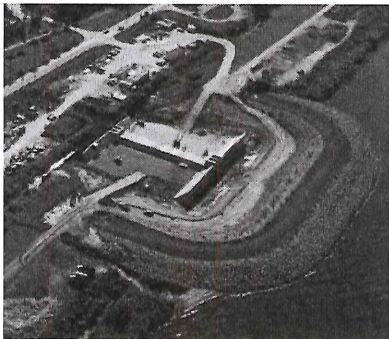
HERBERT HOOVER DIKE (HHD) TENTATIVELY SELECTED PLAN FEATURES BY COMMON INUNDATION ZONES

COMMON INUNDATION ZONES

As the Dam Safety Modification Study has progressed, the Corps has completed analysis on consequences that would result from a breach in the dike with a lake level at elevation 25 feet(NAVD). Based on this analysis, the Corps has identified seven common inundation zones designed to illustrate areas that could be impacted. Failure of the dike at any location along the lakeside of a common inundation zone would flood the impacted area with at least one foot of water.

REACH 1 CUTOFF WALL EXTENSION

With development of Common Inundation Zones, engineers determined that a 6.6-mile section of embankment between Lake Harbor and Belle Glade needed repairs to realize the full benefits of cutoff wall already installed in Reach 1. In 2015, the Corps approved extension of the Reach 1 cutoff wall to cover this area. The Corps plans to award a contract for this work in 2017, with repairs to this section of dike complete in 2020.



DRAFT DAM SAFETY MODIFICATION STUDY

The Corps considered several options and strategies as it developed a final array of alternatives to reduce the risk at the dike to tolerable levels. The tentatively selected plan includes an additional 28 miles of partial cutoff wall, primarily in an area west of Lake Harbor stretching past Moore Haven. The plan also proposes construction of floodwall at low points of the dike near water control structures to reduce the potential risk of overtopping from storm surges generated by high-wind events (such as hurricanes). The Corps also proposes armoring of a bridge abutment to reduce the risk of erosion from similar high-wind events. The estimated cost of the tentatively selected plan is \$400 million.

FOR MORE INFORMATION

visit: http://bit.ly/USACE_HHD

U.S. ARMY CORPS OF ENGINEERS

