HERBERT HOOVER DIKE | Dam Safety Modification Study

FACTS & INFORMATION

SPRING 2013

Herbert Hoover Dike (HHD) is a 143-mile earthen dam that surrounds Lake Okeechobee, the heart of the Kissimmee-Okeechobee-Everglades system. The original dike was constructed with gravel, rock, limestone, sand, and shell. The project reduces impacts from flooding as a result of high lake levels for a large area of south Florida..

HISTORY

Over the past three decades, leaks have developed in the dike following an increase in water levels. Investigations conducted in the 1980s and early 1990s of the dike system's potential seepage and stability problems resulted in the identification of two major areas of concern: the seepage and embankment stability at the water control structure (culvert) locations, and the problematic foundation conditions of the dike. In 1999, the Corps developed a plan to rehabilitate the HHD. The plan was approved in 2000 and divided the 143 mile embankment into eight reaches with the initial focus on Reach 1 between Port Mayaca and Belle Glade.

A NEW APPROACH

In 2011, the Corps changed its approach toward fixing the dike. Rather than use a reach-by-reach approach, the Corps decided to look at it as one large system and prioritize the implementation of projects that would have the largest impact in reducing the failure risk of the dike.

With construction of a seepage barrier (or "cutoff wall") underway between Port Mayaca and Belle Glade, the Corps determined the next projects that could provide the greatest impact in reducing risk were the replacement or removal of 32 water control structures (culverts) installed around the lake. These structures, which date back to the 1930s, provide a local source of water for irrigation and reduce impacts from flooding. Work began on the replacement and removal of these structures in 2011, and is expected to continue through 2018.

THE DAM SAFETY MODIFICATION STUDY

While work is ongoing to replace water control structures, the Corps is determining the best solutions for the remainder of the dike. To adequately address the problems and develop alternatives, the Corps is conducting an evaluation known as the Herbert Hoover Dike Dam Safety Modification Study (HHD DSMS).

The DSMS is more comprehensive than any study ever conducted on the dike. It is reviewing the geology and geometry of the dike in multiple locations. The study is examining impacts from a full range of structural and non-structural alternatives which can be implemented to reduce risk. The Corps expects the results of the study to provide the final roadmap toward the ultimate goal of reducing the failure risk at the Herbert Hoover Dike.

PROJECT WORK CONTINUES

The Corps plans to continue work to reduce the risk on the dike while the study is conducted. The Corps will complete installation of cutoff wall between Port Mayaca and Belle Glade in 2013. Work is ongoing to replace six water control structures, and additional contracts are expected to be awarded later this year on others.

By continuing the high-priority work on the water control structures now, the Corps expects to be in position to execute the remaining suite of projects identified by the study when all 32 structures are replaced or removed by 2018. This course of action ensures the high-priority work is completed first, and that thorough analysis is conducted on the remaining portion of the dike to find the risk reduction measures that offer the best investment for taxpayers.

QUESTIONS

Q. How long will the study take?

A. It is currently anticipated the study will be complete in 2015.

Q. Why not install cutoff wall completely around the dike?

A. While the cutoff wall was an appropriate solution between Port Mayaca and Belle Glade, there may be different solutions for other sections of the dike. This study will identify appropriate fixes at those locations.

Q. Hasn't the dike been studied before?

A. The 2000 Major Rehabilitation Report (MRR) focused only on the portion of the dike between Port Mayaca and Belle Glade, which was considered the highest risk area before installation of cutoff wall.

Q. How long until the dike is fixed?

A. After we account for time needed to replace water control structures and time necessary to implement the repairs this study is expected to identify, we anticipate it will be well after 2020 when all repairs are complete.

Q. How can I be involved in this process?

A. Multiple public meetings will be conducted to gather input from concerned citizens. Additionally, the Corps will also be taking written comments on the National Environmental Policy Act (NEPA) report.

FOR MORE INFORMATION

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