Lake Okeechobee Watershed

Facts & Information

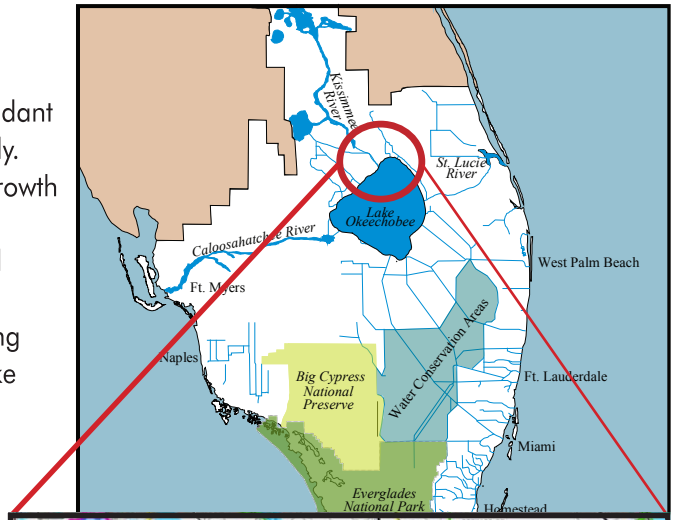
September 2007

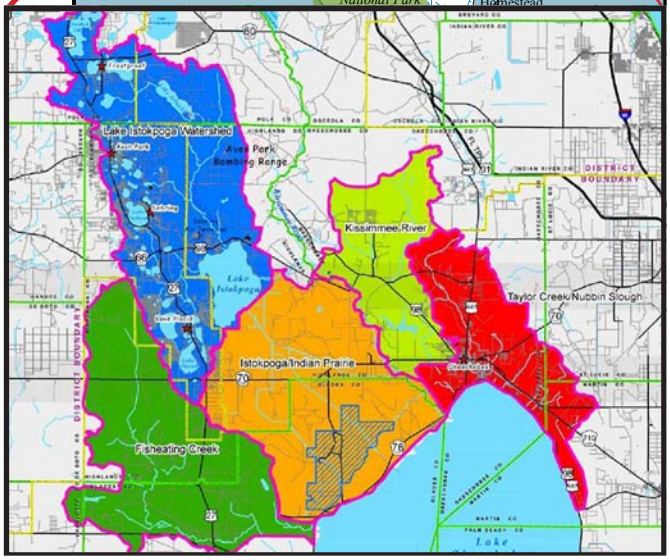
The Lake Okeechobee Watershed (LOW) Planning Implementation Report (PIR) project is a Central and South Florida/ Comprehensive Everglades Restoration Plan (CERP) project, cost-shared between the Army Corps of Engineers and the South Florida Water Management District (SFWMD). The LOW study area is comprised of five watershed basins north of Lake Okeechobee: Lake Istokpoga, Fisheating Creek, Istokpoga/Indian Prairie, Kissimmee River and Taylor Creek/Nubbin Slough.

Project Objectives

There are three major project objectives.

- Improve the ecological health of Lake Istokpoga. Lake Istokpoga, located northeast of Lake Okeechobee, has been known for its abundant bream, crappie and bass fishery, boating recreation and water supply. However, the health of the lake has declined, partly due to an overgrowth of vegetation. The LOW study takes a look at the Lake Istokpoga regulation schedule, to determine the best water level plan to control vegetative overgrowth and improve the lake's ecologic health.
- Restore a once-lush wetland that has been dry since the re-channeling of waterways, to bring wading birds and other fauna back to the Lake Okeechobee Watershed.
- Provide water storage and water quality treatment throughout the five watershed basins located north of Lake Okeechobee. This is perhaps the most critical objective to the success of CERP. Water storage reservoirs will help capture water during high water events, preventing excessive flows from entering Lake Okeechobee that would otherwise place stress upon the Herbert Hoover Dike. They would also reduce or eliminate excessive fresh water being flushed into the Caloosahatchee and St. Lucie Rivers, damaging the delicate estuaries within these rivers. The reservoirs can also be used to supply stored water to Lake Okeechobee during drier months and to help feed water to areas around the lake as needed. Nutrient-loaded water will be directed into Stormwater Treatment Areas (STAs), shallow pools of water filled with nutrient-scrubbing vegetation. The improved water can then be directed back into the water system, helping to keep Lake Okeechobee and the rivers clear. The STAs will also provide added benefits as habitats for wading birds and other animals.





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Tentative Plan

The tentative plan for meeting these objectives consists of the following six structural water storage and treatment features and a recommended water level regulation for Lake Istokpoga:

- **A reservoir in the Taylor Creek/Nubbin Slough basin** – This 1,984-acre reservoir, located in the S-191 sub-basin, will provide a maximum capacity of 32,000 acre feet at an average depth of 18 feet. The feature is situated on the Grassy Island Ranch. The reservoir will receive inflows from and discharge back to Taylor Creek.

- **A Stormwater Treatment Area in the Taylor Creek/Nubbin Slough basin** – This 3,975-acre treatment facility will be located in the S-135 sub-basin. This feature will receive inflow from the L-64 canal and discharge back to the L-47 canal. It is projected to provide 15.8 metric tons of average annual phosphorus load reduction. The STA will have an average operating depth of 1.5 feet.

- **A Reservoir in the Kissimmee River basin** – This 10,281-acre, above-ground reservoir will provide a maximum storage capacity of 161,263 acre feet at an average depth of 16 feet. The feature will be located in the C-41A sub-basin within the Kissimmee River drainage basin. It will receive flow from and discharge back to the C-38 canal (Kissimmee River).

- **A Reservoir in the Lake Istokpoga basin** – This 5,416-acre reservoir is proposed to be located in the C-40A and C-41A sub-basins and will provide a maximum storage capacity of 79,560 acre feet at an average depth of 16 feet. It will receive inflow from and discharge back to the C-41A canal.

- **A Stormwater Treatment Area in the Lake Istokpoga basin** – This 8,044-acre treatment facility will be located in the L-49 sub-basin. It will receive flow from the C-41 canal and discharge treated water to Lake Okeechobee. It is expected to provide approximately 29.1 metric tons of average annual phosphorus load reduction. The STA will have an average operating depth of 1.5 feet.

- **Restoring a Wetland in Paradise Run** – This 3,730 acre wetland restoration site is located at the ecologically significant confluence (under pre-development conditions) of Paradise Run, oxbows of the Kissimmee River, and Lake Okeechobee. Under restored conditions it would have a rain-driven hydrology unless future efforts to further enhance watershed conditions could link the site to the surface flows from the C-38 (Kissimmee River) or C-41A (Istokpoga) Canals.

Collectively the tentative plan involves approximately 33,430 acres of land, some of which has already been purchased by SFWMD, providing a total storage capacity of 272,823 acre feet in the Lake Okeechobee watershed and an estimated average annual reduction of phosphorus going into Lake Okeechobee of 74 metric tons. The current total estimated cost of the project is $1.5 billion.

For More Information

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