Army Corps meeting to focus on new Lake Okeechobee management plan, hydrology models

Lake Okeechobee releases can severely impact water quality in the Caloosahatchee and St. Lucie rivers and estuaries.

Chad Gillis, Fort Myers News-Press Published 6:36 p.m. ET Dec. 17, 2019

The public will get a look at some of the modeling that will guide the future management of the heart of the historic Everglades at a U.S. Army Corps of Engineers online meeting Thursday.

Called the Lake Okeechobee System Operational Manual, or LOSOM, the planning tool is a schedule for when to release and when to hold back water in Lake Okeechobee and is due to be updated.

The Lake Okeechobee release schedule hasn't been revamped since 2008 in the wake of Hurricane Katrina.

Katrina flooded Lake Pontchartrain and caused the Army Corps to generally keep the surface of Lake Okeechobee between 12.5 feet and 15.5 feet above sea level to prevent flooding on farm fields and in towns surrounding the lake while also still supplying water to urbanized areas and to natural systems.

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Fishermen use Lake Okeechobee in Clewiston on Thursday, May 16, 2019. The Centers for Disease Control and Prevention is researching the effects of blue-green algae on people who work and live on or along Lake Okeechobee. (Photo: Andrew West/The News-Press)

Thursday's meeting will focus largely on hydrology models based on the historic Everglades, a 16-county region that stretches from south of Orlando to the Florida Kevs.

"(The) teams have been meeting and working through the technical details required to move this project forward," said Tim Gysan, the U.S. Army Corps' LOSOM project manager. "In addition to our ongoing discussions regarding performance measure development and sensitivity modeling, we'll also begin discussion on the modeling assumptions."

Last spring, the Army Corps made relatively large releases during the dry season in hopes of preventing summer discharges, which can carry blue-green algae to both the Caloosahatchee and St. Lucie rivers and estuaries.

Blue-green algae from the lake has spread to both coasts in recent years.

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Blue green algae and red tide inundated the area last year at this time. It affected tourism, the hospitality industry along with residents, fisherman and other businesses. A year later, business is better but some say it will take years before it is back to normal, others say it is back to previous numbers. (Photo: Andrew West/The News-Press)

"We're in the process of working with multiple municipalities and Lee County to come up with the modeling forecast that will work best for this area," Ruane said.
"We want to show how, like this past year, all people benefited and no one lost. We didn't get beyond any water shortage areas."

Ruane said releasing water early this past year allowed the estuary to recover from harmful discharges.

Read: NOAA, local scientists tracking new, different algae bloom in Caloosahatchee River

"It worked perfectly," Ruane said of lake management in 2019. "It allowed us to bring the lake down and prepared us for hurricane season and allowed us (the estuary) to recover."

Ruane said he is working with cities, Lee County and a professional planner to present solutions that will not cause harm to anyone in the system.

The current Lake Okeechobee management manual is called the Lake Okeechobee Release Schedule, or LORS.

"The problem you had when you played with the old LORS is they truly took it with the thought of following no different than a playbook," Ruane said. "What they (the Army Corps) failed to realize is there is operational flexibility. Now if we can expand LOSOM to have the criteria to show a modeling situation so you take into consideration operational flexibility."

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Jacki Lopez, an attorney with the Center for Biological Diversity, said she'd like to see a regulation schedule that considers impacts to humans and the natural system.

"Some things we'd like to see come out of LOSOM are an acknowledgment by the Corps that how it manages the lake affects coastal ecosystems, a deep-dive investigation into how the different management options impact all resources including human health, listed species, and coastal economies, and finally, a menu of options that give the Corps greater operational flexibility and significantly advance Everglades restoration by looking more closely about how the (Everglades Agriculture Area) could be reincorporated back into the historic flow of the Everglades," Lopez said.

While the St. Lucie estuary never wants releases from the lake, the Caloosahatchee is dependent on lake releases during extremely dry times when freshwater is needed to balance the delicate estuary.

Too much water, however, can damage the estuary as well.

Lake releases can also cause a decline in water clarity, which a 2015 Florida Realtors report says was to blame for Lee and Martin counties' property values being suppressed by half-a-billion dollars that year.