

# Deep-injection wells may help solve Lake Okeechobee runoff

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There's a way to keep more than a billion gallons a day of excess water out of the St. Lucie and Caloosahatchee estuaries without threatening Lake Okeechobee's dike or flooding north Florida. It could cost less than a third of the local Everglades restoration plan, take up significantly less land than a reservoir and could be operational in just a few years.

And on Thursday, local county commissioners, water managers and river advocates said the idea - moving excess runoff water with the same technology many utilities use to dispose of treated wastewater - could be the end of ecological devastation caused by wet years in South Florida. "Maybe its time has come," said Bob Verrastro, a lead hydro-geologist with the South Florida Water Management District. "It's certainly worth looking at objectively, and that's what we're getting ready to do."

Deep-injection wells, technology that pumps treated water 3,000 feet below the ground and eventually into the ocean, are the subject of a new feasibility study that gained support of a district advisory board this week.

Martin County Commissioner Michael DiTerlizzi, who sits on the advisory board, said the deep-injection wells would be a good alternative to the canals, which also send water into the ocean.

"It's proven technology. If you send water to deep well versus to tide, you're solving a problem," he said. "Now, it's devastating our estuaries."

But there are still a lot unknown about the wells, which are different from the Aquifer Storage and Recovery wells. There are about 200 ASR wells proposed as part of the statewide Everglades restoration plan, but they store water about 1,000 feet underground and are also still under study.

Unlike with ASR wells, water managers cannot dip into deep-injection wells for water during dry times.

"We're all very conscious of trying to create storage," Verrastro said.

Paul Gray, a biologist with Audubon of Florida, said there also was concern that the deep-injection wells could be prohibitively expensive, could leak or cause ecological problems elsewhere.

Still, with an estimated deficit of 350 billion gallons of storage in the current Everglades restoration plan, he said the wells could be the answer - especially in wet years or when tropical storms cause significant amount of rain in a short time.

Each deep-injection well, which could be built as early as 2008, could dispose of 18 million gallons a day - compared to ASR wells, which would store up to 5 million gallons a day and take until 2025 to be constructed.

Water treatment requirements would be less for the deeper wells, too, Verrastro added.

Judy Sanchez, another advisory board member and spokeswoman for U.S. Sugar Corp., liked the idea.

"This might be a viable option for reducing the harm and stress to the estuary," she said.

## PROPOSED WELLS

**ASRs:** Short for "Aquifer Storage and Recovery," these wells would store treated water about 1,000 feet below the ground to be pumped back up during dry times. Although the technology is still being tested, they are considered a major component of statewide Everglades restoration plan.

**Deep-injection wells:** Used by many utilities to dispose of treated wastewater, these wells pump water 3,000 feet below the ground, where it eventually makes its way to the ocean. They have a much greater capacity to get rid of excess Lake Okeechobee water and bypass the estuaries, but can't store water for later use.