

Everglades plan could siphon county's drinking water

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For years, Everglades restoration engineers and scientists have been working on ways to control the ripple effects when they finally start returning healthy water flows to the marsh. Increased suburban flooding has long been the big concern from raising water levels in the Everglades but a critical plan now on the fast track surprisingly poses the opposite problem.

Initial computer modeling for the \$1 billion plan, which the U.S. [Army Corps of Engineers](#) is rushing to complete by year's end, suggests the proposed re-plumbing of assorted levees, canals and pumps could divert too much water from a well field that supplies Miami-Dade County with much of its drinking water. At certain times of the year, it also could reduce already meager freshwater flows to southern Biscayne Bay that have turned much too salty.

Kim Taplin, chief of the Corps's Central [Everglades](#) branch, acknowledged the results from the first modeling runs last month were unexpected but she also stressed that the suite of projects can be tweaked to ensure groundwater continues to recharge county wells in West Miami-Dade.

"It is truly a tentatively selected plan," she said at a meeting on the plan last week. "There are a lot of policy issues that have to be worked out."

But the time frame for resolving the problem and other issues is short, and the stakes are high.

This particular plan, called the Central Everglades Planning Project, is an important experiment by the Corps to cut through the bureaucratic red tape that has tangled and slowed restoration since Congress first approved the joint state-federal restoration effort in 2000. The Corps - partnering with the [South Florida Water](#) Management District and a large "working group" of other state and federal agencies, environmentalists and outdoors groups - is trying to crunch its typical planning process of five to six years to 18 months.

The goal is to formally select a plan by April and have it approved by Corps leadership in Washington in time to include it among a handful of already authorized Everglades projects stalled until Congress approves funding - most likely through a massive public works spending bill. Such measures, called water resources development acts, are passed periodically, with the last one coming in 2007. Everglades supporters are pushing hard for another one.

The Central Everglades plan is designed to finally help the ailing heart of the Everglades - moving more water through state-owned water conservation areas south of Lake Okeechobee, down through the Shark River Slough, the historic headwaters of Everglades National Park and finally out into Florida Bay.

Though the plan wouldn't do everything called for in the larger \$13.5 billion restoration plan, which was expected to take decades to complete, it would represent a major first step toward restoring natural flow to a system long bottled up by dikes and drainage canals.

The plan calls for siphoning water currently released from the lake and "lost to tide" down the Caloosahatchee and St. Lucie rivers and redirecting it to the south.

The water - up to 65 million gallons annually - is intended to refresh long-

parched swaths of the Glades and too-salty Florida Bay and offer relief to sections of state-owned marsh where water has historically been held too high, destroying tree islands and reducing wildlife populations. After studying four alternatives, a working group hammering out the plan made a tentative choice last month, combining features from two alternatives. The new plan, known as 4R, includes nearly 20 separate projects to backfill portions of canals, remove or shorten levees, add gates and pumps, extend bridging along Tamiami Trail and remove the old road bed.

It also includes an underground wall called a "seepage barrier" south of Tamiami Trail designed to reduce the flow of groundwater from the Everglades east toward the suburbs. Because South Florida's porous limestone geology behaves much like a sponge, adding water on one side of a levee tends to raise ground water levels on the other side as well, which can reduce the drainage capacity of canals and increase suburban flood risks.

Computer modeling last month, however, showed the design cut off so much seepage it reduced water flows to Miami-Dade's well fields - an impact the county wants alleviated before endorsing any plan.

"We have very serious concerns at this point, and we aren't prepared to support 4R for sure and probably any of the others until we can see some actual results of whatever can be done to address the shortcomings," said Susan Markley, a section chief for the county's division of environmental resources management.

Markley also cautioned that moving ahead with the plan without solving the issue could force expensive and time-consuming delays down the road. The Everglades restoration agreement includes a "savings clause" that legally obligates the Corps and district to preserve the existing [water](#) supply of utilities and other users.

At a meeting last week, Taplin agreed the design had gone overboard on stopping seepage. But she said tweaks to the seepage wall design and levees and pumping schedules should keep more groundwater around the well fields.

Barry Rosen, a U.S. Geological Survey scientist who is vice chair of the project working group, said it wasn't uncommon for initial modeling runs on complicated projects to produce such surprises.

"You have to draw it up once to see how you can refine it," he said.

Biscayne National Park also has raised question about the plan, concerned that it will further reduce freshwater flows to the bay, which is also supposed to be targeted for restoration under the broader Everglades plan. But Taplin said improving conditions in Biscayne Bay is outside the scope of the Central Everglades effort.

Dawn Shirreffs, Everglades program manager for the National Parks Conservation Association and a member of the working group, admitted the expedited process was "a little scary" after years of dealing with the Corps' grinding analysis.

Much of the focus, she said, had been on deciding what project to build to rapidly improve conditions in the marsh itself rather than on outside impacts like seepage. Still, she was confident that the "nitty-gritty details" would be addressed despite the fast track effort, which the Corps hopes to use as a model nationally if it succeeds.

"The Corps is not going to move forward with something that shows a violation of the savings clause," she said.

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