Land Deal Likely to Improve Everglades, Ecologists Say

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Credit: minds-eye

Tom Brokaw, Miss Florida, and the all stars of Florida Everglades advocacy came to Washington on May 19 to discuss the progress of restoration efforts. Packed into a small room down the street from the Capitol building, the environmentalists broke into cheers when the Obama adminstration unveiled a $324 million plan for new bridges to lift sections of a highway that now blocks water flow in the wetlands.

But panel speakers at the Everglades Summit made no big announcements about one of the most ambitious and controversial pieces of the $12 billion restoration puzzle -- a plan to buy agricultural land between the Everglades and Lake Okeechobee to the north. The purchase has been stalled by lawsuits and is under review in Florida's Supreme Court.

While debates continue to rage about the economics and politics of the $536 million land deal, Florida's wetland ecologists agree that, scientifically speaking, it is the best way to start to restoring much-needed water flow to Florida's "River of Grass".

Over the past 60 years as much as half of the wetland has been replaced by trickling canals and nutrient-hungry sugar cane. Everglades National Park is the third largest park in the lower 48 states, but according to the National Park Service, its 1.5 million acres protects less than half of the wetland's original territory. The rest has been drained and developed into cities and into a vast swath of citrus and sugarcane-dominated farmland called the Everglades Agricultural Area.

This development has sapped water from south Florida's famous wetlands and left them with ion and salinity "levels closer to an estuary rather than a fresh water system", said Ronald Best, a wetlands ecologist with the U.S. Geological Survey in Fort Lauderdale.

William Orem, a geochemist with the USGS in Reston, Va. who studies pollution in the Everglades, estimated that sulfate levels in the Everglades are already 60 times higher than pre-agricultural levels. Phosphorous, chloride, calcium, copper and iron are also found in alarmingly high concentrations and mercury levels in fish and wading birds are among the highest anywhere in the U.S.

With numbers like those, few would argue that the Everglades needs no ecological intervention. So in 2000, the U.S. Congress passed the Comprehensive Everglades Restoration Plan, a jointly federal and state funded plan comprised of 50-plus projects to be completed over 30 years at a cost of more than $10 billion, making it the most comprehensive and expensive environmental repair plan ever undertaken in the U.S. One of CERP's many goals was to increase freshwater flow into the Everglades by one-third. To this end, in 2008 the state of Florida

proposed a $1.75 billion dollar plan to buy 180,000 acres of U.S. Sugar Corporation land south of Lake Okeechobee.

Two years and a recession later, that original plan has been reduced to $536 million dollars for 73,000 acres. And while the smaller price tag has appeased some critics, others, including Republican Florida state senator Paula Dockery, still have concerns about the patchwork nature of the land deal - the six tracts being offered for sale by U.S. Sugar don't directly connect. And a dozen other Everglades restoration projects may have to be put on hold due to the expense of the land purchase, including a massive $300 million dollar water reservoir already underway in Palm Beach county.

According to Thomas Van Lent, a hydrologist with the Everglades Foundation, the current land deal, while frustratingly patchwork, is still an important step in the right direction. "There are lots of political and economic issues swirling around this U.S. Sugar deal, but you're not hearing much about the science, because it's not that controversial," Van Lent said. "We know what needs to be done [to help the Everglades] and how to do it," he said.

"Water quality is the Achilles' heel of this whole freshwater plan," said Orem. "Right now they're trying to move more water down into the park through the canal system, which is probably the worst way to do it," he said. "Canals don't support the natural biogeochemical processes that remove contaminants."

By purchasing land south of Lake Okeechobee, the South Florida Water Management District will not only gain more access to the lake water, it will also gain the land it needs to clean and filter the water to make it Everglades-ready.

Lake Okeechobee has been badly contaminated by half a century of

fertilizer and pesticide-heavy agriculture, “so we shouldn’t just dump that water into the Everglades,” Orem said. Instead, the parcels purchased from U.S. Sugar will be converted back into marshlands, which will naturally filter the heavily polluted Lake Okeechobee water before it is swept into the park.

“Wetlands are very effective at removing toxic levels of nutrients such as nitrogen and phosphorous,” said Stephen Davis, a wetlands ecologist with the Everglades Foundation, a non-profit conservation and restoration group based in Palmetto Bay, Fla. “Recreating these marshes is a closer approximation to how the Everglades used to work, as opposed to chemical treatment plants.”

Although the new reduced acreage plan is less than ideal -- the patchwork map will continue to make water delivery tricky -- Davis said taking any amount of farmland land out of production is good for the Everglades. And if enough parcels of land could eventually be bought and traded, water could move through these marshes from the lake all the way south to the park.

But despite what scientists say are clear ecologic benefits, the U.S. Sugar land deal, originally scheduled to close March 31 but recently extended until September 30, continues to be fiercely criticized by Senator Dockery, former Florida Governor Jeb Bush and thousands of Florida taxpayers, mainly due to its high price tag and long timeframe: Purchasing all the U.S. Sugar land and engineering a continuous sheet-flow of water through it from the lake into the park is estimated to cost a staggering $12 billion. Reaching CERP's goal of increasing freshwater flow into the Everglades by a third “will probably take years, if not decades,” said Van Lent.

Van Lent conceded the land purchase may put some other restoration projects on hold, including the oft-cited reservoir and a proposed series

of underground wells, but he said restored marshlands are a more ecologically sound way to store and deliver freshwater anyway. “The economic realities are going to force us to prioritize, which is always hard,” he said. “But land is key and I do think this plan is going to be a good for the Everglades in the long run.”

By pushing back the close of sale deadline by six months, the South Florida Water Management District will have more time to address some of the deal’s financial and political pitfalls. So for now, convinced ecologists will have to wait and see.

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