



SOUTH FLORIDA WATER MANAGEMENT DISTRICT

## OPINION

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### **Creative Solutions are Key to Everglades Restoration, Water Supply** *L-8 reservoir project moving ahead; C-51 reservoir could offer benefits*

As South Florida's regional water management agency, the South Florida Water Management District is responsible for providing flood control, restoring natural systems and ensuring a sustainable water supply for more than 7.7 million residents.

This can be a daunting task. One of the most challenging aspects of water management in South Florida is not the 50-plus inches of rain that falls in our backyards each year. Rather, it is finding a place to store that water for beneficial use during dry times.

South Florida's flat landscape means that when it rains, without storage, water must be discharged through our extensive canal system to the ocean to prevent flooding. To capture this "lost" water and use it to support Everglades restoration and regional water supply needs, the District is working hard to identify and implement storage solutions. These can come in many shapes and sizes, from aboveground reservoirs and deep injection wells to shallow storage on agricultural lands.

A unique geological formation in Palm Beach County is providing us with one of the more creative water storage solutions. The 950-acre L-8 reservoir is a strategically located former rock mine with a watertight geology. A component of Everglades restoration, this deep-ground reservoir will contribute to cleaner water for the Everglades, restoration of the Loxahatchee River and improved water quality in the Lake Worth Lagoon. Along with environmental benefits, it also offers residential advantages such as flood control and supplementing urban water supplies.

Approved in 2002, this first-of-its-kind project provides 15 billion gallons of water storage, enough to fill 24,000 football fields one foot deep in water. And, at an investment of \$6,000 per acre-foot, the rock mine saves taxpayers millions of dollars compared to constructing an aboveground reservoir.

Since its acquisition, various criticisms have been leveled at the L-8 reservoir. The fact is that this reservoir is a viable project capable of delivering results and the return on investment we expect to achieve. When I became the District's Executive Director last June, I prioritized this project to get it operating as promised. Here's the good news: This past week, the District issued a Request for Qualifications from firms to design and build the massive pump station needed to move water out of the reservoir and deliver it

to the natural system. This is a giant leap forward, and it means we are on our way to project completion – and project results.

It's important to note that instead of sitting idle, the L-8 reservoir has provided interim benefits. During the 2004 and 2005 hurricane seasons, the reservoir provided much-needed water storage that reduced residential flooding. In 2007, the City of West Palm Beach utilized more than 600 million gallons of water from the reservoir during the drought. Residents were again able to rely on the L-8 reservoir for their water supply this past summer when the city's water resources ran dangerously low. In 2009, FPL used reservoir water for its cooling system, conserving millions of gallons of groundwater. And, most recently, the District utilized small pumps to send fresh water from the reservoir north to the Loxahatchee River during 2011's dry conditions. This pilot project demonstrated that the L-8 reservoir works.

Nearby to the L-8 project, another rock pit is under construction. Known as the C-51 reservoir, this project is being analyzed by the District and a coalition of utilities as a potential public water supply source. Under the right conditions, the C-51 could potentially store water currently lost to tide and deliver it to recharge wellfields. Similar to the L-8 project, it is a viable concept that could be utilized to effectively meet future water supply demands and improve the Lake Worth Lagoon. While the challenges are in the details, the project deserves a thorough evaluation and our continued dialogue.

Balancing the District's missions of flood control, water supply and restoration often requires innovative thinking, which both of these reservoirs represent. Add in creative partnerships, perseverance and continued collaboration, and we have a formula for success.

*Melissa L. Meeker*  
*Executive Director*  
*South Florida Water Management District*