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WATER SUPPLY

Why is Florida so dry?

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In the past month, nearly double the normal rainfall dumped on Miami-Dade County.

The Biscayne Aquifer, the limestone sponge that supplies most of Southeast Florida's drinking water, brims from Florida City to coastal Broward County.

Some Everglades airboat trails off the Tamiami Trail gleam with standing water, atypical for the dry season.

So this is a drought?

Some people in South Florida may have a hard time believing it, but state water managers insist that, yes, things really are serious. And they could turn dire if the 17-month dry spell extends into the region's rainy season, normally just a month away.

"Droughts are slow-simmering water emergencies, not sudden flares like floods or hurricanes," said Carol Ann Wehle, executive director of the South Florida Water Management District. "But they can be just as dangerous, because they impact our drinking-water supplies, the environment and our regional economy."

Aside from the Biscayne Aquifer, water levels in every other source the region taps have declined dramatically -- lakes, rivers, canals, other aquifers and the Everglades. The effects spread weekly:

- Taps could soon run dry in Pahokee, on the eastern rim of Lake Okeechobee, which is creeping so low that the town utility soon won't be able to pipe water into homes. After a key supply canal nearly went dry, West Palm Beach restricted residents last week to one day of lawn watering a week.
- In Miami-Dade, Broward and Palm Beach counties, some residents could face the prospect of buying bottled water if seawater works its way into coastal well fields, making tap water too salty to drink.
- Farmers, who lost more than a half-billion dollars in the 2000-01 drought, are again watching sugar-cane stalks and other crops wither in the Everglades Agricultural Area after new restrictions slashed water supplies in half. In canals off Lake Okeechobee, mud surrounds some docks and boat ramps, crippling business for marinas, bait shops and fishing guides.

- In the Everglades, smoke from wildfires has blanketed suburbs, and if marshes get too dry, more stubborn muck fires could ignite, burning deep scars in the landscape. Wading birds already have abandoned the drying marsh "super colony," the most productive breeding ground in the Glades in recent years. Farther south, a Florida Bay deprived of fresh water could see more nasty blooms of algae.

The effects have been compounded by sprawling development and by hurricane concerns that led to water management agencies lowering Lake Okeechobee last year because of its aging, leaky dike.

Weather in the coming months and over the next year, of course, will determine whether this drought proves as damaging as the most severe ones in the 1950s, 1970s and 2000-01.

But water managers are especially worried because of what they call an unprecedented condition: Almost all of South Florida is running well below average on rainfall. For the Water Management District, which oversees the elaborate plumbing system that links 16 counties, that has sharply limited the usual options of moving water around to revive parched areas.

"We've always had some place we can turn for a backup," said district Deputy Executive Director Chip Merriam. "This time we don't."

Outside of Miami-Dade and parts of south Broward, the rest of the region has received half as much rain as usual since January, including critical northern areas that recharge the whole system -- the Kissimmee River basin and Lake Okeechobee. And that follows an exceptionally dry 2006 from Orlando to Key West.

Because the area's water supply depends primarily on rain, that's a serious problem. There is no disputing water gauges across the region. The deficit is deep, trending toward a record-buster in the month left before the rains are supposed to arrive.

Lake Okeechobee, called the liquid heart of Florida, sat at 9.74 feet above sea level on Saturday -- about a foot from an all-time low.

Nearly two-thirds of 36 groundwater sites across South Florida monitored by the U.S. Geological Survey over the past quarter-century have hit record lows for the date and are tracking toward historic bottoms.

Even the relatively bountiful groundwater under Miami-Dade and coastal Broward has had some engineering help. Water managers have urged utilities to hold groundwater artificially high in key coastal areas to block salty seawater from pushing inland and tainting drinking wells.

Along Broward's coast, U.S. Geological Survey readings went from very dry to very wet in a week. If it lasts, that stash of groundwater could help the southeast area weather the

drought with fewer problems. But the plumbing doesn't allow water managers to pump it to parched northern areas, and if it did, there is not enough to help out much.

Still, Scott Prinos, a supervisory hydrologist for the survey, can see why some people might be puzzled over dire water warnings and use restrictions.

"If I were living in Miami-Dade, it would be hard for me to understand why I have to worry about it," he said.

