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Lagoon's water won't be desalted

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The thirsty region had eyed the Indian River, but a study points to marine-environment harm.

One of the top options for supplying water to thirsty Central Florida has dropped off the table because scientists believe it would harm one of the richest marine environments in the nation.

The region had been considering the Indian River along Florida's east coast as the first major foray into desalting water.

But a key study shows the process of withdrawing water and dumping salt and other impurities back into the river would cause sea grasses, redfish, stingrays and many other species to vanish from large portions of the river's fragile lagoon.

In a state with a legacy of ruining its important waterways, the study comes as potent ammunition for defenders of the ailing river.

The dire findings, however, also leave Central Florida closer to the relatively desperate and enormously more costly step of desalting and drinking water straight from the Atlantic Ocean.

Although the region also plans to tap the St. Johns River in south Orange County and is considering further withdrawals from the river near Sanford, the burgeoning population will demand even more water than those sources can provide in the next few years.

"We have definitely ruled out large-scale desalination from the lagoon," said Jim Gross, a senior project manager for the St. Johns River Water Management District. "It's not great news for local utilities."

The St. Johns River Water Management District had hoped the semi-salty lagoon might yield a huge amount of drinking water-as much as 60 million gallons a day-that could serve many communities.

For comparison, that's more than two-thirds of the demand of Orlando Utilities Commission customers.

The lagoon was a tempting water supply because it generally contains considerably less salt than the ocean. That makes it cheaper to purify for drinking.

Another attraction is a pair of electric-generation plants south of Titusville, which could provide both power for desalting water and the large plumbing systems needed to draw water from the lagoon.

The state's largest desalination plant in Tampa, which has been plagued by nearly $50 million in technical problems, takes advantage of both of those situations: It withdraws water from the less salty Tampa Bay and is linked to a power plant.

For the Indian River, however, the burden would be too high, according to the St. Johns district study, which so far has taken 18 months. It warns that withdrawing any more than 10 million gallons a day-and putting extracted salt back into the lagoon-would trigger widespread decline of critical sea grass and

many species of sea life. Sea-grass beds are critical as a kind of underwater forest that provides both food and shelter for a host of creatures.

The Indian River Lagoon, clinging to more than 100 miles of Florida's east coast, has been documented as having perhaps the greatest variety of marine life in the nation. About a third of the nation's manatees live there.

Yet the waterway has been sickened by excessive and polluted runoff from adjoining communities. State and federal agencies have spent years and millions of dollars to revive the lagoon. The study said that taking even 10 million gallons a day would cause a degree of harm that politicians and authorities would have to carefully consider.

For Beth McMillen, assistant director of the Marine Resources Council environmental group in Brevard County, utilities and the water district should finally write off the lagoon as a major source of drinking water.

"It's time to look elsewhere," McMillen said. "No habitat loss is acceptable if you are trying to restore the habitat."

Water managers said a relatively small amount of less than 10 million gallons daily might serve a single utility along the Atlantic coast. Raynetta Grant, director of Titusville water resources, said her utility will continue to study the potential for drawing water out of the Indian River.

But Gross, of the St. Johns water district, said the study casts doubt on the prospect of withdrawing water from intracoastal waters along Central Florida, because environmental issues probably would arise. He said that leaves the Atlantic Ocean as the next option.

For now, area utilities are forging a partnership for building a regional plant in southeast Orange County that will dip from the St. Johns River. That plant is to open in 2012 at an ultimate cost of more than $200 million and a daily supply of 40 million gallons. Although there are no specific plans now, Seminole and Volusia counties have also been studying taking water from the St. Johns.

"True ocean desalination, probably on a large scale with multiple utilities, is something that might be of interest in five to 10 years," Gross said.

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