

THE BOND BUYER

Water pressure: As Florida's usage surges, recycling gets a second look

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To meet the growing demand for water in the state, the Florida Department of Environmental Protection has created a campaign highlighting the benefits of recycling.

To ensure continued economic growth, the state has seen a need to diversify into alternative water sources to meet projected needs as well as respond to drought and protect the environment.

“The choice is no longer the environment versus the economy — the environment is the economy,” Miami Mayor Francis Suarez said in his State of the City address in January.



DEP says using recycled water relieves pressure on the state's water resources. AdobeStock

The environment's economic impact is not inconsiderable as tourism is one of the largest industries contributing to Florida's GDP. And tourists flock to Florida for its sunny beaches and many other natural attractions.

According to VisitFlorida, the state saw 79.8 million visitors in 2020, down from the record 131.4 million visitors in 2019. The fall in tourists was almost all due to the COVID-19 pandemic. Based on an economic impact study, VisitFlorida said visitors in 2019 contributed \$96.5 billion to the state's economy, which supported over 1.6 million jobs in the state.

Municipal bonds have been a tool in Florida's arsenal and have been used across the state by municipalities to help manage infrastructure, drinking and wastewater needs.

Environmental, social and governance issues have taken on increasing importance for municipal governments all across the country and the Sunshine State.

In July 2020, Tampa sold \$363 million of water and wastewater systems revenue and refunding revenue bonds. The deal kicked off the city's five-year \$1.2 billion capital improvement program that will upgrade its water pipes and finance other infrastructure upgrades. It earned The Bond Buyer's [Deal of the Year](#) award for the Southeast Region.

In June, Miami-Dade County came to market with \$236 million of subordinate water and sewer system revenue bonds. In April, the county sold over \$600 million of revenue bonds to finance improvements to the biggest water and sewer system in the southeastern United States.

The Miami-Dade Water and Sewer Department serves a growing population, which currently totals almost 2.8 million county residents, along with thousands of tourists and visitors.

Nationally, sales of general obligation and revenue water and sewer bonds totaled \$43.4 billion in 2020, according to Refinitiv data. But according to [Moody's Investors Service](#), water and sewer utilities in the U.S will have to issue three to four times as much debt in the coming years as they have been selling recently to finance the many projects the Environmental Protection Agency says are needed.

In a 2018 report, the EPA estimated \$743 billion in water infrastructure improvements are needed to meet the country's drinking water and wastewater needs. Moody's said the majority of those costs will be borne by local utilities.

Bonds have also been used for a wide variety of environmental purposes.

“The state has done a lot to replenish wetlands with Florida Forever bonds,” says John Hallacy of John Hallacy Consulting LLC. “Creative thinking is still required to meet demand.”

And that demand is growing by leaps and bounds.

Florida’s population is increasing at a torrid pace as almost 1,000 people a day on average move into the state. Additionally, about 350,000 tourists come to visit on an average day. It's estimated that by 2040 about 1 billion gallons day of additional water will be needed to keep up with the population boon. Currently, Floridians use about [6.4 billion gallons](#) of water a day.

DEP said the state’s aquifers, lakes and springs can’t sustain the growing demand for water and so expanding the use of recycled water is essential and is a safe way to ensure there will be plenty of water to meet demand.

“Our water supply in Florida is not endless, and reusing water relieves pressure on Florida’s water resources and ecosystems,” Shawn Hamilton, DEP interim secretary, said in a July 16 statement. “This is one component of the state’s water supply planning to safely and sustainably diversify our water resources while protecting our precious environment.”

The Florida DEP is the state’s main environmental agency, tasked to protect, conserve and manage the environment and natural resources. In 2020, the state Legislature passed the Clean Waterways Act that gave the DEP the authority to create and update regulations for recycled water. DEP is now starting the public process based on the Florida Potable Reuse Commission’s recommendations.

The new regulations will address technical components of water treatment including how to deal with all types of possible contaminants and meeting both and federal and state drinking water quality standards.

The aim of the new campaign is to let residents and tourists know that recycled water is safe and sustainable and is part of Florida’s overall plan to diversify its water sources and protect the environment.



Aerial view of a water treatment plant. The aim of the state's campaign is to let people know recycled water is safe and sustainable. AdobeStock

“Potable reuse is highly treated recycled water from various sources that can be used for drinking, cooking and bathing,” DEP said. “Purification uses proven technology to ensure the water is safe, with recycled water meeting all stringent state and federal drinking water standards.”

DEP noted a variety of recycled water projects have been successfully implemented throughout the United States, around the globe and in outer space.

Realizing many people may be concerned about using “recycled water,” DEP stressed that treatment use has been proven to be safe for both the public health and the environment.

“Recycled water, when used for potable reuse, meets or is a higher quality than strict state and federal drinking water standards,” DEP said.

“First, recycled water goes through multiple advanced pretreatment processes. Next, the water receives additional filtration processes to remove microorganisms, including viruses, bacteria and other pollutants,” DEP said.

“These advanced processes used to treat the water provide a safe, reliable and sustainable drinking water supply.”

As part of the "One Water Florida" campaign, DEP will provide information from experts who work with recycled water; an interactive map which will highlight recycled water projects around the state, country and the world; and other resources, such as research, presentations, videos and articles.

Florida has five water management districts: Suwanne River, St. Johns River, South Florida, Southwest Florida and Northwest Florida. The program was designed in coordination with the districts and WaterReuse Florida, the Potable Reuse Commission, the American Water Works Association Florida Section, the Florida Water Environment Association, The Nature Conservancy and the Florida Fruit & Vegetable Association.

In the state’s fiscal 2021-2022 budget, more than \$415 million was approved for the Everglades restoration project along with \$202 million for water resources. The budget also includes \$152 million to protect other properties and waters in Florida. Over the past three years, the state has invested over \$2 billion in water and environmental programs.

An additional \$644 million in federal stimulus funding has been committed to Everglades restoration, targeted water quality improvements, springs restoration and the alternative water supply.

DEP says using recycled water will relieve pressure on the state’s resources and ecosystems.

“The more water we recycle, the more water remains in our rivers and springs for the plants and wildlife that rely upon them, such as fish, birds and manatees,” the DEP says.

Last week, Gov. Ron DeSantis signed the Florida Wildlife Corridor Act, which directs the DEP to promote investments that protect the corridor. The budget

included \$300 million specifically to protect the corridor in addition to the \$100 million already allocated to the Florida Forever program.

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