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Brief ...

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Hybrid irrigation system could help solve water woes

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LEESBURG -- As water withdrawals threaten Florida's underground water supply, the state has been pushing local governments to find alternative sources of water for residential and commercial users.

That's why the city has partnered with Holloway Technology, which has

developed an irrigation system to water trees and plants, while at the same time conserving and recycling water and eliminating the need for groundwater.

The partnership could help the city find ways to control water use and encourage water-friendly landscaping at the entrances of new residential subdivisions and commercial parks.

"We felt that we needed to find and provide better solutions," said Ray Sharp, Leesburg's director of environmental services and public works departments.

"We can adapt those same principles and technologies to conventional landscaping."

At Holloway's research facility, 2620 Griffin Road in Leesburg, there are several large basins -- each about the size of a football field -- that are flooded to provide water directly to the roots of the potted ornamental trees and plants growing on the farm.

Any water the trees and plants don't use flows down into a retention pond where it is stored and ready to be used on the plants again. The ponds also capture rain and stormwater runoff

Sharp is working with Rufus Holloway, a medical doctor and Leesburg native who invented the hybrid irrigation system, on a project to test his irrigation methods on residential and commercial landscaping applications.

Plants surrounding a scenic pond rest in soil on top of an impermeable layer, which prevents water from seeping into the ground. Instead, the layer directs any water the plants don't use into the pond.

Water from the pond is regularly pumped underground to soak the roots of plants. And then the cycle repeats itself. Any unused water the plants don't use flows back into the pond.

To Holloway's and Sharp's surprise, in only three months time, the project's plants have flourished and matured so much it looks like any other landscaped area that's taken years to become established.

"The advantages are tremendous," Holloway said. "Plants grow more evenly and it doesn't use groundwater."

Soon, commercial and residential developers could have the option of using the same techniques and principles developed by Holloway in their subdivisions. Sharp said it could speed permitting with the water management district if an alternative water source is used to irrigate landscaping.

Holloway has received three U.S. patents for his irrigation inventions, according to the U.S. Patent Office. He's also been given several state and federal grants to continue developing his water-conservation projects.

His work has gained the attention of governments around the world interested in conserving drinking water.

"I don't think we've been very good guardians of our fresh water, as far as the world," Holloway said. "We're going to try, in our small way, to make a difference."