

Responsive Drip Irrigation system part of Enoch City's new water-saving efforts

[Joan Meiners](#), St. George Spectrum & Daily News | Published 1:57 p.m. MT June 23, 2020
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Enoch City has begun testing a new drip irrigation system in its Jones Memorial Park that could potentially bring massive water savings to Iron County if implemented more broadly.

The Florida-born technology, called Responsive Drip Irrigation (RDI or [GrowStream™](#)), consists of non-biodegradable tubing that is installed underneath existing sod or crops.

Once underground, a porous material meters out water in response to chemical exudates released by 'thirsty' roots. In this way, the RDI system claims to only expend the exact amount of water plants need to grow, right in the spot where they need it.

A non-peer reviewed [study](#) of the RDI system used to grow livestock feed grasses in Kenya has already indicated that water savings of up to 84% are possible, while supporting a 19% increase in plant yield. According to Enoch City Manager Rob Dotson, the system is also in use in parts of California and the Middle East.

“We are grateful to Enoch City for modeling this system and hope to see many more water-wise irrigation systems throughout the community in the future,” Enoch City Councilman and CICWCD Board Member David Harris said. “We can’t afford to waste such a precious resource.”

Compared to standard sprinkler systems that saturate lawns and fields while losing water to wind and evaporation, effective delivery of water directly to plant roots could help inch Iron County closer to ambitious water conservation goals.

“Over 5,300 acre-feet of water in the Cedar Valley is used for municipal and residential purposes,” Paul Monroe of the Central Iron County Water Conservation District (CICWCD) said. “It is essential for the municipalities to work together and take advantage of new technologies to help lower that water usage.”

The CICWCD sponsored installation of the RDI system in Jones Memorial Park with a \$6,400 grant to Enoch City. Over the next couple of years, water and cost savings will be tracked in the park and compared with other parks in the area without the RDI system. However, Enoch is confident in its potential and is already planning on expanding its use of the technology.

“We will be installing more in another of our parks in the near future,” Dotson said. “And that could be a huge benefit. If this machine can reduce consumption by 60% in everybody's lawn, I mean, that's a huge savings of water.”

A June 2020 [report](#) by the CICWCD Water Advisory Committee confirmed prior estimates that Cedar Valley has been overdrawing groundwater, its primary water source, by about 7,000 acre-feet per year for several years. This has necessitated the development of a Groundwater Management Plan for Cedar Valley that aims to reduce water consumption and educate the public about the need to carefully manage water resources as Cedar Valley’s population continues to grow.

With the CICWCD service area population [expected](#) to nearly double in the next few decades, from just over 49,000 currently to nearly 97,000 by 2050, the need to manage available water resources by adopting new water-saving technology like RDI is becoming an urgent issue that will affect residents of all valley municipalities.

“Ultimately everyone's in this same basin together so that's why we pitched in,” Monroe said. “It's a collaborative effort, and it has to be. Water is regional and it doesn't have boundaries.”

Joan Meiners is an Environment Reporter for The Spectrum & Daily News through the Report for America initiative by The GroundTruth Project.