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Expanded Oak Run wastewater facility will help save water



The recently enlarged Oak Run Wastewater Reclamation Facility processes up to 810,000 gallons a day of reclaimed and treated wastewater and replaces three defunct privately owned and less efficient water treatment plants.

The facility is part of the Marion County Wastewater Regionalization plan, which includes facilities in Silver Springs, Stonecrest, Golden Ocala and Salt Springs. The goal of the plan is to eliminate the roughly 120 private, county and city water treatment facilities and return reclaimed water to the areas surrounding the five regional plants. Incorporation of the three private plants into the Oak Run facility started in 2003.

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The \$27 million facility and pipe network, to which a 1.6 million gallon treated water storage tank recently was added, is designed to accept piped-in sewer water from the Oak Run, SummerGlen, Marion Oaks, Spruce Creek Preserve and JB Ranch residential developments.

Bringing the water up to advanced water treatment standards means it is not drinking water but is fit for human contact.

“It’s not as good as well water, and we have some concerns about algae (formation),” O’Dell said.

Reclaimed water is now sent back to golf courses at Oak Run and Spruce Creek Preserve.

Marion County Utilities director Flip Mellinger said Marion Oaks alone has 28,000 home lots, with some of the first phases of the development tied to sewage but many sites not yet connected.

The Oak Run Wastewater Reclamation Facility is operated by Marion County Utilities, under the Marion County Board of County Commissioners.

“The typical water and sewer bill in one of the developments nearby is about \$65 a month. We use about 5 percent of these fees for capital improvements. We received a grant from Southwest Florida Water Management (District) toward the Oak Run facility and funds from the developers and DEP (Department of Environmental Protection) loans,” Mellinger said.

“Marion County Utilities customers use about 10 million gallons of water per day through our 30,000 connections. Our 18,000 wastewater customers send about 2.1 million gallons of that back to the utility; of that, Utilities sends out just over 1 million gallons a day to be used as reclaimed irrigation water. In addition, Utilities is continuing to expand its reclaimed efforts throughout the county,” Mellinger said.

At the Oak Run operation, the wastewater comes in via 24-inch diameter green pipes and is circulated in a 500,000-gallon surge tank, which has a mild odor caused by “hydrogen sulfide” in the sewage. The water then goes through a process to remove large matter.

“We once found some cash and (remains) of baggies, likely from a drug raid. We reported it to the Sheriff’s Office,” said Steve Jones, who is with the facility.

A second 500,000-gallon tank is called a “digester,” Mellinger said.

Operations Manager Lynn Collier said that naturally occurring microorganisms digest nutrients in the water and “biomass” settles. The biomass is sent to the Baseline Landfill, where it contributes to the methane produced there and is used for on-site electric generation.

Next, the water is sent to two 1 million-gallon tanks to be aerated to remove nitrates, then is sent

to a clarification process and sprayed through a set of “membrane” filters before it is treated with chlorine to kill bacteria. The entire process is computer monitored with a system that can notify on-site operators like Wes Radel if there is something to be checked.

Mellinger said the algae reported by O’Dell, it is likely caused “by the water being in a natural (unlined) pond and the nutrients are acting like a fertilizer” for what is naturally found in the pond.