Charlotte County's reclaimed water part of a bigger problem

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Columnists

Charlotte County's outdated sewage treatment plants do not remove nutrients including nitrogen and its reclaimed water distributions send that polluted effluent back into our coastal environment.

Charlotte County is currently trying to decide how best to fix the water quality exceedances in its surrounding coastal waters. In the past the fallback has been the conversion of septic systems to sewers, at great cost to the homeowner. But the data shows that the real threat to water quality is the county's own recycled water discharged from its sewage treatment plants (STPs) and shipped throughout the county.

The county's STPs do not treat for and do not remove nutrients. The STP discharges have all the nutrients, including nitrogen, that were in the untreated sewage influent. All that nitrogen is then redistributed through its "purple pipe" reclaimed water system to ponds and direct users throughout the county.

The total nitrogen concentration in the county's reclaimed water is reported by the county to be 34.7 mg/L to as high as 92 mg/L. The reported volume of recycled water is typically 1.3 billion gallons annually. This means that the county's own system is discharging between 190 and 500 tons of nitrogen annually that can reach Charlotte Harbor and Lemon Bay.

The county's recycled water basically functions as fertilizer. Yet because fertilizer use contributes to nitrogen exceedances it is banned in the summer. Not so the county's flows.

Moreover the county has a high number of sewer and recycle line breaks and spills. These maybe inevitable in a county with so much construction, but the breaks and spills add to the total nitrogen load to the environment.

This doesn't have to be the case. Sarasota County is installing so-called Advanced Wastewater Treatment (AWT) which removes nitrogen at its treatment plants, and Sarasota has suspended its septic to sewer conversions to see the result of better wastewater treatment. Florida statutes will require AWT eventually and defines it as treatment lowering nitrogen to 3 mg/L. Contrast that with the 34.7 to 92 mg/L measured by the county in its current flows.

There is data showing that our coastal environment, and its seagrass coverage, were relatively healthy in the period 2003-07. What changed in 2007? The county began an expansion of its recycled water system with 24 miles of transmission lines throughout West County.

The county should immediately test the total nitrogen loading of its sewage treatment plant effluent and their contribution to coastal exceedance and use the data to put installation of AWT at each of its sewage treatment plants on a fast track. This, rather than septic to sewer conversions, will provide the best bang for the buck in water quality improvement.

The county is holding a town hall on water quality on Jan. 31 at 9 a.m. at the Convention Center in Punta Gorda. It is hoped that gathering will be an opportunity to hear from citizens about their preferences on these important issues.

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