

Septic to Sewer Considerations Nov. 10, 2017

1. The Florida Department of Health is the agency which permits the use of septic systems. Its website states:

“Onsite sewage treatment and disposal systems (OSTDS), commonly referred to as septic systems, are a safe and effective means of wastewater disposal for 30 percent of Florida’s population. With an estimated 2.6 million systems in operation, Florida represents 12 percent of the United States’ septic systems. Properly designed, constructed, and maintained systems protect Florida’s ground water which provides 90 percent of Florida’s drinking water. Permitting and inspection of OSTDS is handled by the Environmental Health Section of the [Florida Department of Health in each county](#).”¹

It is the responsibility of every owner to maintain their government permitted septic system. It is the responsibility of the county DOH to identify improperly operating septic systems and enforce remediation.

Question for elected officials: Have you identified any government permitted septic systems which are operating improperly?

2. The septic tank part of a septic system attenuates nitrogen. The drain field which distributes septic tank effluent further attenuates nitrogen. The soil below the drain field, the leach field, further attenuates nitrogen. State law requires at least two feet of soil between the drain field and the water table.²

The most effective way to measure the amount of nitrogen remaining after it has been attenuated by the septic tank, the drain field, and the two feet of soil beneath the drain field, is to obtain data from soil samples using lysimeters. Such data gathering should be done at the two, four and ten feet levels to measure attenuation abilities of the soil.

Questions for elected officials: Have you any data from local soil samples using lysimeters in this immediate area?

3. The basis for accusing septic systems of gross pollution is incomplete and, in fact, false. A key document supporting the effort to blame septic systems is a 2007 study conducted by Ellis and Associates.³ Out of 55,000 septic systems in the Wekiva Study Area, they performed a very limited study on three septic systems. Despite the study’s recommendation to not extrapolate the results to other systems in Florida, the results were used in other studies and reports. This led to attempts to mandate the costly replacement of septic systems.

Question for elected officials: Are you aware that the 2007 Ellis Report’s findings and recommendations have been ignored? Have you read the report?

4. Where data documents the need for remediating excessive nutrient discharges from septic systems, innovative and affordable upgrades, which minimize polluting nutrients, can be made to aging septic systems. Lining a drain field and leach field with effective nutrient reducing (up to 97 percent) products such as “Bold and Gold” (developed at the University of Central Florida)⁴ or simple wood chips have been known for years but, have unfortunately, not been brought forth to the public.

Question for elected officials: Are you aware there are remediation solutions which are much less expensive and disrupting than switching to sewer systems? Have you considered their cost effectiveness? What is the cost of conversion per home? What is the return on investment for converting based on improved water quality?

5. Electricity dependent methods (aerobic septic systems and grinder systems) for dealing with human waste have proven to be foolish and dangerous in a state so vulnerable to power outages and flooding. Recently, power outages from Hurricane Irma led to 84 million gallons of raw sewage being dumped into homes, roadways, parks, and waterways. And the poor community of Everglades City has been devastated with sewage that backed-up into homes and, then, into the streets.⁵

Question for elected officials: Are you aware that when electricity stops flowing waste in electrical septic systems and sewers also stops and, in fact, backs-up posing a serious and potentially deadly health risk?

6. Failing sewer systems or waste water treatment plants in Florida have poured millions of gallons of raw waste into the environment. After Hurricane Irma, Brevard County dumped over 13 million gallons of human wastewater into canals and the Indian River Lagoon.¹¹ In Ft. Pierce, over 10 million gallons has been dumped into the Indian River Lagoon since Irma.¹² Consider 200 million gallons of raw sewage in St. Petersburg⁶, in Tampa⁷, and 390,000 gallons, ongoing problems in Ft. Lauderdale.⁸

Question for elected officials: Are you aware that failing government systems are more responsible for polluting the environment than privately owned septic systems?

7. The conversion of septic to sewer in the Town of Suwannee made little to no improvement to water quality (salmonella, coliforms, and especially N).⁹

Question for elected officials: Are you aware than expensive septic to sewer conversions do not necessarily solve the pollution problem? Are you aware of the Suwannee conversion?

8. Tom Belanger , environmental scientist at Florida Tech studied the IRL and septic tanks, concluding that properly operating septic systems are not the “smoking gun” regarding nitrogen pollution.¹⁰

Question for elected officials: Do you think it is wise stewardship of public money – taxpayer money – to throw it at a perceived cause of pollution when other causes may be a greater contributor?

In Conclusion

Septic to sewer conversion is said to be a public benefit. If a local government entity demands such a conversion take place, that is their right. But, the public should bear no cost of this so-called public benefit.

Forcing homeowners to pay for such conversion when they have a government permitted septic systems constitutes a taking. Failure to provide full compensation may well lead to a Bert Harris Act lawsuit.

Endnotes:

1. <http://www.floridahealth.gov/%5C/environmental-health/onsite-sewage/index.html>
2. <https://www.flrules.org/gateway/RuleNo.asp?id=64E-6.006>
3. [http://www.floridahealth.gov/environmental-health/onsite-sewage/research/_documents/wekivafinal-report-appendix-a.pdf#search="ellis assoc 2007 study](http://www.floridahealth.gov/environmental-health/onsite-sewage/research/_documents/wekivafinal-report-appendix-a.pdf#search=)
4. <http://www.boldandgoldmedia.com/>
5. <http://www.tcpalm.com/story/news/local/indian-river-lagoon/health/2017/09/26/widespreadsewage-leaks-after-irma-showed-floridas-dependence-electric-pumps/703730001/>
6. <https://www.bing.com/news/search?q=St+Pete+Sewage+200+Million+Gallons&qpvt=st+pete+sewage+200+million+gallons&FORM=EWRE>
7. <http://www.tbo.com/news/environment/water/329000-gallons-of-wastewater-spill-in-tampa-duringmonday-nights-storm/2335537>

8. <http://www.sun-sentinel.com/local/broward/fort-lauderdale/fl-sb-fort-lauderdale-sewage-crisis20170630-story.html>
9. Evaluation of Bacterial Water Quality Around the Coastal Town of Suwannee, Florida, 2009
10. <http://www.floridatoday.com/story/news/local/2014/02/13/septic-tanks-not-so-bad-afterall/5439329/>
11. <http://www.floridatoday.com/story/news/local/environment/2017/10/03/brevard-county-urgesresidents-limit-sewage/728275001/>
12. <http://www.tcpalm.com/story/news/local/indian-river-lagoon/health/2017/10/19/fort-pierce-utilitiesauthority-wastewater-spill-into-indian-river-lagoon-being-addressed/776560001/>