

“Talking Points” of a Hybrid Septic Tank Effluent Pump (STEP) System

A Hybrid STEP System is a sewerage collection system that uses a septic tank to contain and treat solids, a pump station to remove the clear effluent and a drain field to act as a backup to the pump station for disposal of the effluent during power outages.

- The total cost, including availability and connection costs, of a Hybrid STEP System is approximately 1/2 the price of a conventional gravity sewer or a vacuum style sewer system.
- The availability cost of a Hybrid STEP System (i.e. installation of mains, valves, etc. in City Right-of-Ways) that is normally fronted by a local governments is less than 1/10th the cost of a conventional gravity sewer or a vacuum style system. This lower cost for availability may allow Local Governments to make sewer available to more residents quicker.
- Collection lines for a Hybrid STEP System are normally 2” up to 4” therefore they can be installed using directional drilling techniques instead of open cutting the ground. The drilling of these lines causes less disruption therefore residents and businesses can continue their normal affairs with minimal interruption. In addition, tree canopy and heavily landscaped areas are virtually untouched.
- Installation time for a Hybrid STEP System is less than 1/4 the time required for a conventional gravity sewer or a vacuum style system.
- Hybrid STEP Systems are compatible with existing On-Site Sewage Treatment and Disposal Systems (otherwise known as Septic Systems) and normally will just attach to these systems.
- Pumps and collection lines of a Hybrid STEP System require less maintenance because the effluent is relatively free of grease, oil and solids.
- In some cases the Septic System drain field is left in-place as a backup during prolonged power outages that can occur during hurricane season. When a drain field is not left in place the STEP System will have a larger holding tank that will provide capacity for approximately 3 days.
- The Water and Sewer Utility of a Local Government typically maintains the Hybrid STEP System and controls the pump-out frequency of the septic tank.
- Local Governments may eliminate more than 99% of the nitrogen and phosphorus rich septic system effluent that is now being discharged to groundwater by installing Hybrid STEP Systems.
- Groundwater carrying pollutants from Septic Systems will no longer flow to the Indian River Lagoon.

In the case of the City of Vero Beach, the City has roughly 1,500 residents with septic systems. The estimated cost to install a gravity sewer system for these residents is approximately \$22.5 million. The availability cost to make mains available for these residents to connect to is \$18.0 of the \$22.5 million. The estimated cost for a Hybrid System to serve these same residents is \$11.0 million. The availability cost of this system is less than \$1.0 million.