



4th Annual Hydrogeology Consortium Workshop

Solving Water Pollution Problems in the Wakulla Springshed of North Florida



Septic Systems Discussion Session - Recommendations Findings & Recommendations from the Septic Systems Panel

1. Variability in hydrogeological settings and land use patterns across the State requires that watershed-specific approaches to waste water treatment and disposal be used. No one size fits all (centralized waste treatment might be the ideal solution in certain areas such as urban communities; while enhanced septic systems may be the model of choice in sensitive rural areas).
2. The panel recognizes the need for additional studies, monitoring and research to verify the effectiveness of Best Management Practices (BMPs) implemented or policies chosen. However, the panel also emphasizes the need for taking immediate steps, based on available knowledge, that further efforts to reverse water quality-degradation in the spring systems.
3. State, regional and local governing bodies should preserve critical areas through purchase or conservation easements.
4. The panel recommends delineation of vulnerable zones of high ground water vulnerability as delineated by FAVA or a similar approach. Local governments, in collaboration with state agencies, should define zones within which wastewater treatment practices must be designed to protect and improve water quality.
5. The EPA has defined five management models for decentralized and onsite wastewater treatment systems in ascending order of responsibility and ownership. The panel recommends that nothing lower than level 4 or 5 be adopted for the Woodville Karst Plain springshed.
6. Establish management entity(s) such as a utility that will be responsible for the construction, operation and maintenance of decentralized wastewater treatment facilities (AKA onsite wastewater systems), including existing septic systems, performance-based treatment systems, clusters systems and even small package plants, if applicable.
7. The entity could be a local government agency, a cooperative or a private sector entity with proper supervision by state, local or municipal governments. The possibility of obtaining federal EPA funds, as the initial capital outlay should be investigated; but long term funding should be from a dependable tax-based source and/or from user fees.
8. Systems used by the management entity in the defined spring protection zones should be performance-based in order to ensure compliance with established standards of water quality and periodic monitoring to verify compliance. There are many treatment options available for new construction and retrofits within a defined protection zone. Within such a zone, the panel recommends the use of systems that can achieve at least 70% nitrogen reduction, 95% reduction in BOD and TSS, 98% reduction of fecal coliforms or, establish an effluent limitation.
9. The panel suggests that existing efforts to protect environmentally sensitive areas, such as the Wekiva, the Florida Keys, or others outside Florida be evaluated for applicability to the Woodville Karst Plain.
10. The panel also considered adding the concept of reduced density in lieu of or in combination with performance-based treatment systems, hence reducing loading in higher risk/vulnerability areas. Restricting density to 5 acres or more for these areas could serve to address lowering nitrate loadings as well as reflect current land use trends."
11. Education - the panel recognizes that cooperation of the communities involved is essential to implementing measures to protect sensitive water resources. The panel strongly recommends the design and implementation of a

regional public education effort including specific steps such users can take that would result in better operation and maintenance of decentralized waste treatment facilities.

