



Charlie Crist
Governor

Ana M. Viamonte Ros, M.D., M.P.H.
State Surgeon General

INTEROFFICE MEMORANDUM

**INFORMATION
HSES 09-003**

DATE: February 25, 2009

TO: Bob Eadie, Administrator, Monroe County Health Department
ATTN: Bobby Sleighter, Environmental Health Director

THROUGH: Lisa Conti, D.V.M., M.P.H., Dipl. ACVPM, CEHP
Director, Division of Environmental Health *LC*

FROM: *Gerald Briggs*
Gerald Briggs, Chief,
Bureau of Onsite Sewage Programs

SUBJECT: Permitting Evapotranspiration/Vegetated Submerged Bed

INFORMATION ONLY

Occasionally, engineer-designed systems in the Florida Keys have included a modified evapotranspiration bed/vegetated submerged bed in the system design. EPA has provided a variety of design guidance documents:

- 2002 EPA Onsite Wastewater Treatment Systems Fact Sheet 6: Evapotranspiration and Evapotranspiration/Infiltration
- 2000 EPA Constructed Wetlands Treatment of Municipal Wastewaters Manual
- 1980 EPA Onsite Wastewater Treatment and Disposal Systems Design Manual

In an effort to maintain consistency in the review of such alternative system components, the following guidance is given.

The evapotranspiration bed/vegetated submerged bed can be permitted as other engineer-designed alternative system component (64E-6.009(8) FAC) as part of a performance-based treatment system that is permitted, operated and maintained in accordance with 64E-6 FAC.

The evapotranspiration bed shall be auxiliary only – no treatment credit is allowed. It must receive influent from a pretreatment unit that is designed to meet at least interim standards and discharge to a full drainfield or injection well in accordance with the requirements for the Florida Keys. No surface discharge shall be allowed from the evapotranspiration bed.



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Division of Environmental Health
Bureau of Onsite Sewage Programs
4052 Bald Cypress Way, Bin #A08, Tallahassee, Florida 32399-1713

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Because the evapotranspiration bed is auxiliary only, it does not need to be sized with the goal of zero discharge to the drainfield. Past applications have been limited to estimated sewage flows of 200 gpd in situations where public water supply did not exist.

The bed shall be covered by 6"-12" of slightly limited material. The bed thickness shall be limited to 20".

The liner material shall be at least 40 mil PVC flexible sheeting with properties according to ASTM D7176-06 or equivalent. Seams along the length or width of the bed, if necessary, shall be pre-manufactured.

Maintenance inspections shall include a check of water levels at the inlet and outlet side to assess if head loss across the bed remains at less than 10% of the bed depth or less as specified by the engineer.

Please provide copies of this memorandum to engineers and contractors working in Monroe County. Questions on this memorandum should be addressed to Eberhard Roeder at 850-245-4070.