

April 21, 2014

To: Commissioner Bob Simmons

From: Todd Mohn, Director of Public Works

Re: Busse GT Sewage Treatment System

You have inquired about the efficacy of the Busse GT Sewage Treatment System ("System") as an alternative to providing public sewer to communities in South Kent Island, as planned. My research indicates the System would not be a viable alternative as a permanent wastewater solution for South Kent Island.

Initially, the System is not widely used. Presently, only about 1,000 of these systems are in use worldwide. And, the system is not an alternative approved by MDE. Such approval could take many years.

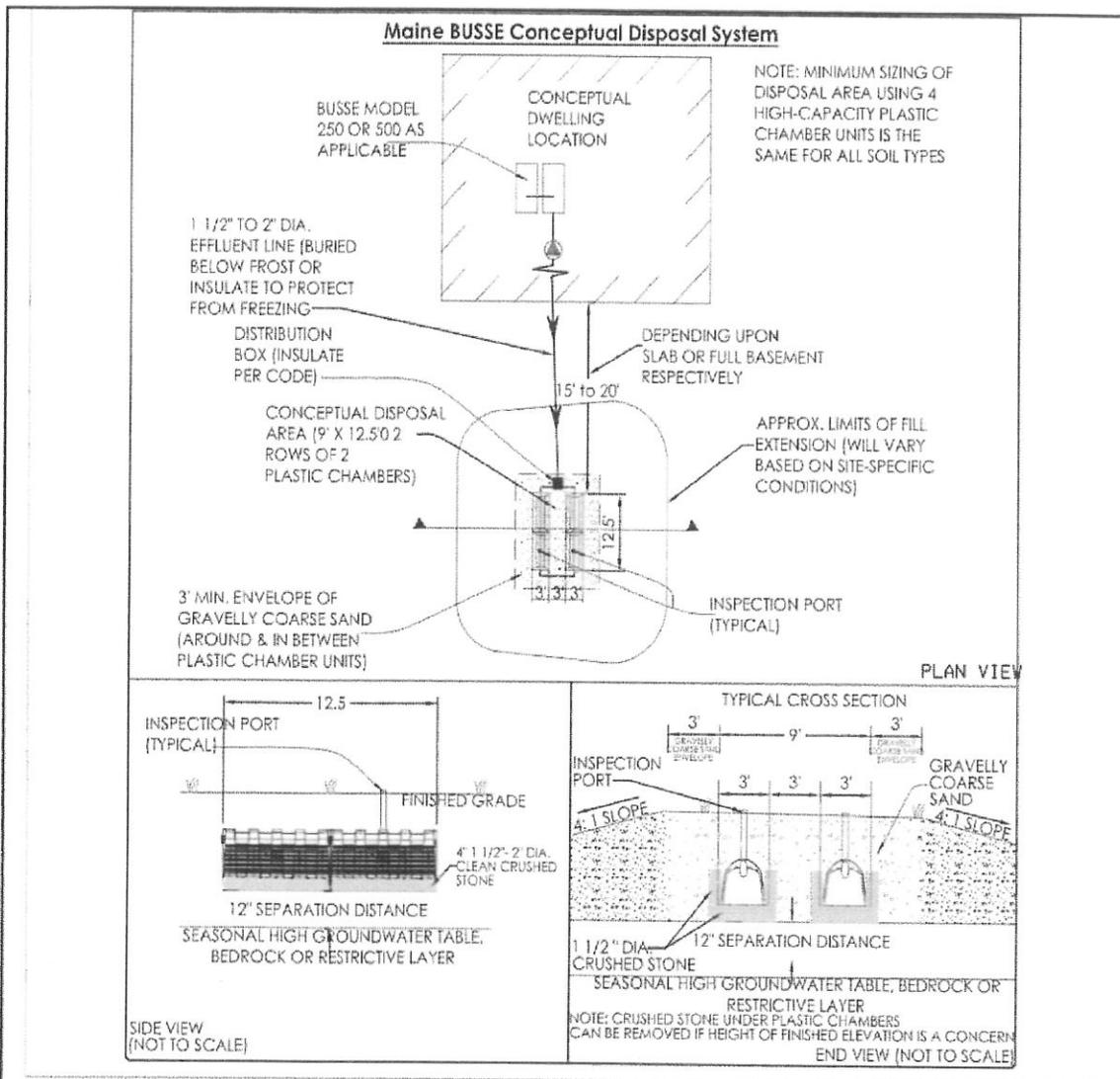
Second, the system does discharge effluent into a drain-field and requires a 12-inch separation from the bottom of the drain-field to the seasonable high water table. With this required separation and the depth of the drain-field, the seasonable high water table must be three-feet below ground level for compliance with System standards. Throughout the communities to be served by public sewer the seasonal water table is above this level.

Third, the System costs approximately \$22,000 to install with a \$500 per year operations expense. The present estimated cost for a homeowner choosing to pay capital expenses upfront for public sewer is \$14,417 with ongoing O&M expenses being \$360 per year. So, the County sewer system would cost less. And, the County sewer system will be maintained by the County in perpetuity, whereas this relatively unproven System will need to be replaced and maintained as a future homeowner capital expense.

Forth, the typical System installation appears to be in a basement. Basements are generally not available to homes in South Kent Island. So, there would be an additional expense for a tank for the waste and for the pump-out from that tank.

Last, if the System is available for present homeowners, vacant lot owners could claim entitlement for their lots. For example, the Busse system has been approved in Maine for both retrofits of failed septic systems and for new construction. Currently they are about eight Systems in use there. If this same entitlement proved valid in Maryland, efforts to manage growth in South Kent Island could be undermined.

Please advise if I can provide further information.



**BusseGT State of Maine Disposal Area Sizing Chart for replacement systems
(Below sizing can be considered for first time systems with State Variance)**

Stone & Pipe Bed:	10' x 20' x 12" Thick (4" Stone underneath)	24" Total System Profile
Standard Plastic Chamber:	9' x 12.5' x 16" Thick (4" stone underneath)	28" Total System Profile
Concrete Chamber	8' x 12' x 17" Thick (4" stone underneath)	29" Total System Profile
Quick 4 (8 units required)	9' x 16' x 8" Thick (4" stone underneath)	24" Total System Profile

BusseGT State of Maine Rules at a Glance:

- Δ Just 4 high-capacity plastic chambers (or equivalent) needed for disposal area
- Δ 12" separation to limiting factor in all soil types, very low total system profile
- Δ No external septic tank needed, can be installed in basement, utility room or shed
- Δ Can be used with drip irrigation

Call Albert Frick at 207-839-5563 for more information
www.bussemaine.com

