

## Responsiveness Summary

2-6-2006

Approximately 750 notices that the Agency of Natural Resources was reviewing an options paper that was prepared by the Technical Advisory Committee were mailed to municipalities and consultants. Four e-mail replies and one letter were received which are summarized below. The options paper is posted at:

<http://www.anr.state.vt.us/dec/ww/EngServ.htm#tech>

(If you need a hardcopy of the options paper, please call 802-241-3822.)

1. Comments from a professional engineer:

The proposed systems in option #2 are very expensive and will benefit only a few people. There are concerns about the use of systems that require such a high level of “treatment, monitoring, maintenance, and ongoing regulatory oversight” especially for small commercial users and individual homeowners. “People still don’t have their tanks pumped.”

“After reading the document, I feel that this proposal is taking it too far too soon, and if implemented would not benefit the people who most need the help.”

2. Comments from a lake association:

There are concerns about how the proposed systems would be used for seasonal cottages and a few homes that may be in the flood zone with annual high water events. “. . . option 3 seems clear enough when applied to a single property but becomes a nightmare when multiple adjacent properties are considered. The cost to one may be extreme, but the cost if the same system would work for numerous cottages, becomes almost prohibitive.” “Have you considered this problem of many adjacent cottages located close to lake shorelines which experience annual flooding and if so what might be an option for them?”

**Response: The options paper examines issues related to new development as opposed to replacement of failed systems, though if any systems are eventually approved they could be used as replacement systems. It would be extremely difficult to obtain a permit for a direct discharge as contemplated in option #3. If the approach were ever used where a cluster of houses existed, some sort of collection would be proposed so that only a single discharge point would be used.**

3. Comments from a professional engineer:

Options #1 and #3 will not solve the problem or are unrealistic.

Option #2 is too expensive. “If we are treating to a high level and disinfecting, and requiring operational oversight (via remote monitoring), it seems as though we should be able to use less expensive final disposal systems, while still providing a degree of separation (e.g. pressure-distributed contour trenches meeting current isolation distances except for increased isolation to surface water unless nutrient removal systems are employed).”

It is not a good idea to have permits expire if the maintenance contract is not maintained in force. If a person refused to keep the maintenance contract in place the permit could be temporarily revoked until contract was reinstated. Consider licensing maintenance contractors as a way to privatize regulatory oversight. Consider a permit for the system design that runs with a land and a separate operating permit that remains valid as long as they own the land and keep the service contract in place.

Keep it as simple as possible.

4. Comments from a soil scientist/certified site technician/professor

Is the information in table 3-19 realistic for Vermont? Was this information developed in a similar climate? Have the proposed options been tested in northern New England? How did they influence the environment, short and long term, with respect to pathogens, nitrate, and phosphate? These answers should be known prior to large scale use of these systems. There should be some small scale testing that thoroughly tests the systems.

Have other solutions such as constructed wetlands been considered? These seem like a better option.

**Response: The numbers in table 3-19 appear to represent a summation of various testing programs. The operation of the septic tank and the various advanced treatment components are unrelated to soil conditions, but can be to some degree affected by temperature. However, these components are usually installed below ground surface where the temperatures do not vary as much as those above grade. The level of treatment that is proposed to occur within the soil could be affected by ground temperature, particularly the portion that is close to ground surface.**

**Constructed wetlands can be approved under the current rules. They are somewhat affected by temperatures, but the design varies based on expected**

**temperatures so that they can function well even during the colder portions of the year.**

5. Comments from a professional engineer

Eliminate the slope restriction as there is no engineering basis for this. Consider allowing systems with only 12” of soil over bedrock. Consider eliminating requirement for a replacement system. Discharges to wetlands are not a bad idea “as they are really good at treating domestic sewage.”

In England, a discharge from a constructed wetlands runs to a road ditch and then to surface water as they believe it is more important to protect the groundwater. Eliminate the requirement for the percolation test.