Brem_194-03.26.2015

Response to Chris Heep letter of March 13, 2015

By: JA Brem, 3-23-2015 Notes of items to be discussed with the Board of Appeals on March 26 as requested by Mr. Heep.

1. Each innovative or alternative technology manufacturer will design the specific alternative technology to the requirements of the state. In this case, the design will be to 19 mg/L (state guidelines are 35 mg/L for non-secondary treated effluent).
2. Title 5 allows Alternative Technology to be used to increase the daily flow rate from 440 gpda to 660 gpda at 19 mg/L and to 550 gpda at 25 mg/L.
3. There are three (3) separate soil absorption systems ("on-site systems") on one "facility" pursuant to the definitions of each in 310 CMR 15.002. We acknowledge and agree that each system will be pressure dosed in conformance to 310 CMR 15.231(1) and that a groundwater mound will be computed for each system pursuant to 310 CMR 15.212(2).
4. Yes, waivers of the sections cited are being requested (see other correspondence for more detail).
5. No credit land is proposed at this time. The computation is as follows:

# units	# BR	Flow Rate	Daily Flow Rate (GPD)	Area Factor - Alter. Tech	Acreage Required (Ac)
1	4	110	440	660	0.67
2	2	110	440	660	0.67
17	3	110	5610	660	8.50
			6490		9.83

Total Project Area = 9.84 Acres [9.84 > 9.83 --- OK]

6. Irrigation will be used for irrigating the lawn and planting areas with the use of an underground sprinkler system on timers to irrigate at night. There are 2.30 acres of irrigated lawn proposed. The pump system will be installed by the irrigation contractor in the irrigation cistern or in a separate pumping chamber just off the cistern. It is anticipated that there will be one pump. The irrigation plan will comply with the Board of Health policy on limiting irrigation withdrawal to 15% of the recharge capacity of the property. The allowed withdrawal volume for the subject land is 9.84 acres X 543,120 gallons per acre per season X 15% = 801,645 gallons. The project expects to withdraw approximately 412,000 gallons per season based on figures accepted in the past by the Carlisle Board of Health and Board of Appeals so, yes, the project complies.

7. MassDEP classifies three types of snow activities: Snow Disposal, Snow Storage, and Snow Plowing. Obviously there will be no Snow Disposal (from off site areas) onto the project. Snow Storage is shown on the latest Site Plans by Meisner Brem (dated 2-06-2015) in five designated areas, none of which is over a soil absorption (leaching) area for the septic system. Snow plowing is not a regulated DEP activity. However, the Stormwater Handbook cautions that the

bio-retention facility should be placed in a position where it will not receive the plowed snow directly but can capture the snow from the melting of the plowed pile to ensure that the runoff does not "bypass the cell and drain into downgradient wetlands without first receiving the required water quality treatment (See Stormwater Handbook, Vol. 2, Ch 2 P. 28). This is how the project is designed; with the plowed snow on the shoulder upstream of the rain garden.

8. See above and the snow plow detail on Sheet 9 of the referenced revised plan set (dated 02-06-2015).

9. The hydrogeological study will be submitted on or about March 20, 2014.

10. A signed plan set was provided on or about February 6, 2015. Any reference to other towns have been removed previously. It is expected by the applicant that, prior to the close of the hearing, one more iteration of the final civil engineering design will be made but at a point in time in concert with the peer review to address a multitude of minor comments.