

This is the reply from the engineer concerning the standing water, dated 1-19-21.

Good morning Dianne;

Pursuant to our conversation earlier this morning about the standing water in the retention ponds, I'd like to offer this explanation.

In Pond 2, the northern pond, there are 3 contributing factors for the standing water. 1) During the grading operations by Nichols, elevations were shot on the 2 mitered end sections at the west end of the pond as well as the notch in the control structure. It was found that the invert elevations of the mitered end sections were within 1-1/2" of that of the notch. There isn't adequate longitudinal slope across the pond to provide adequate of the drainage thru the pond. 2) The soils in this area of the County are very silty and mucky. Water is not able to percolate into and thru the soil; however, 3) even if percolation could be improved, the water table is right at the surface and could be tidally influenced, as the pond is so close to the creek. Considering these 3 factors, actual elimination of the water in the pond bottom doesn't appear feasible without installing a new underdrain system.

The pond was originally designed to have an underdrain in the side bank. Instead, it was installed directly under the bottom of the pond without any filter medium (it was never installed in conformance with the approved plans). The wrong type of pipe (pipe used for septic drainfields) was used and a "sock" was installed around the pipe rather than an encased filter system. Apparently, when the original excavation was done, they had an issue with groundwater and installed the underdrain to lower the water table so they could shape the pond. However, to reinstall the underdrain, even directly under the pond bottom, would be very costly and, considering the existing soils, lowering of the groundwater would be very slow.

With fluctuations of rainfall throughout the year, standing water can be expected during the rainy season and dry-up conditions during dry times. It may be best to see what type of plants populate the pond bottom. After adequate plant population, the hay bale can be removed to allow water to move more quickly, as it is there just to keep the "mud" from entering the master collection system and washing into the creek. Pond 3 has a similar situation although not as severe as Pond 2.

I hope this serves to address your concerns and those of residents adjacent to the ponds. Let me know if you need further explanation of this issue.

Bob

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