

**VIRGINIA:**

**BEFORE THE STATE HEALTH DEPARTMENT  
SEWAGE HANDLING AND DISPOSAL APPEAL REVIEW BOARD**

**In Re: Franklin Emswiler**

**ORDER**

Mr. Emswiler appeals the Health Commissioner's denial of his application for permits<sup>1</sup> for three onsite sewage disposal systems on his property along Rt. 42 about one mile North of Harrisonburg.<sup>2</sup> The Board heard the appeal in Harrisonburg on October 28, 1998.

The history of this case is set out in the Department's Proposed Findings of Fact, which the Board adopts.

In short, two of the sites are on a five-acre parcel, the other is on a thirty-six acre parcel. The consultant for the prior owners had found both parcels

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<sup>1</sup> Code § 32.1-164.B.1 authorizes the Board of Health to adopt regulations to include "[a] requirement that the owner obtain a permit from the Commissioner prior to the construction, installation, modification or operation of a sewerage system . . ." Section 2.12 of the Board's *Sewage Handling and Disposal Regulations* (the *Regulations* now are codified at 12 VAC 5-610-10 *et seq.*; § 2.12 is codified at 12 VAC 5-610-240) imposes that requirement. Section 1.4 of the *Regulations*, 12 VAC 5-610-40, authorizes the Commissioner to delegate his authority under the *Regulations* (except for variances and orders) to the Department and appoints the Department as the primary agent of the Commissioner for the purpose of administering the regulations. Pursuant to that authority, the Commissioner has delegated the authority to issue and deny permits; he has not delegated the authority to issue variances. Denials of permits and variances may be appealed to this Board for the final administrative decision pursuant to Code §§ 32.1-164.1 and 32.1-166.6.

<sup>2</sup> Tax Map 79 (10)A, # C-98-167; Tax Map 94-(A)3, # C-98-168; Tax Map 79(10)A, #C-98-169.

unsuitable for drainfields. Mr. Emswiler purchased the lots in 1996, expecting to install alternate (discharging) systems.

In that respect, on August 23, 1996, the Commissioner issued Mr. Emswiler a variance on the thirty-six acre parcel to allow a discharge in proximity to limestone ledges. Between October 9 and November 6, 1996, the Department of Environmental Quality issued eight "small sewage" discharge permits, six on the thirty-six acre parcel and two on the five-acre parcel. One prerequisite to these permits is the conclusion that the owner be unable to obtain an onsite permit from the Health Department.<sup>3</sup>

At some time after the purchase, Mr. Emswiler reconsidered the cost and complexity of the discharging systems, in light of advice from a new consultant, and changed his mind. On April 2, 1998, he applied for onsite (septic tank/drainfield) permits for a three-bedroom house on the thirty-six acre parcel and for two such structures on the five-acre parcel. Mr. Emswiler told the Board that he wishes to build his own home on the larger parcel, and to sell half the five-acre parcel and build for his daughter on the other half.

Mr. Emswiler's consultant, George Swecker, went to the lowland portions of the two lots that had been summarily rejected by the former consultant, and proposed to locate drainfields there.

Mr. Swecker agrees with the former consultant that the highland areas of

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<sup>3</sup> 9 VAC 25-110-60

these parcels are shallow to rock and, thus, unsuitable for drainfields. He states, however, that the lowland areas, despite their locations, are suitable for drainfields. The Department, in contrast, says that both the locations and soils on these sites are contrary to their regulations.

To resolve this dispute, we turn first to the Regulations.

### **APPLICABLE REGULATIONS**

Part III of the Sewage Handling and Disposal Regulations<sup>4</sup> sets forth requirements as to the locations and soils where a drainfield may be installed. Of particular interest here, 12 VAC 5-610-470.C provides:

#### **C. Drainage ways.**

1. Definition. A drainage way is a concave portion of the landscape in which surface water or rain water run-off gathers intermittently to flow to a lower elevation.

2. Placement. Subsurface soil absorption systems shall not be placed at a position in a drainage way subject to intermittent flooding.

12 VAC 5-610-470.G further provides:

G. Flood plains. Subsurface soil absorption systems shall not be placed in flood plains subject to annual or more frequent sustained (24 hours) flooding.

The Regulations do not define “flood plain.”

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<sup>4</sup> 12 VAC 5-610-450 *et seq.*

## **Analysis**

The Department says that the site on the thirty-five acre parcel and both sites on the five-acre parcel are in positions in drainage ways subject to intermittent flooding. Moreover, the Department says that both sites are shallow to a seasonal water table. Mr. Emswiler says that neither site is concave, and that the soils are suitable.

### **The Thirty-six Acre Site**

The thirty-six acre site is the easier case. The photographs confirm the conclusions of the Department and its expert, Mr. Cobb, that the proposed drainfield is sited in a drainage way. Indeed, as Mr. Cobb says, the site is in a choke point where the drainage way narrows. Mr. Swecker does not really deny this; he agrees that the site is in a drainage way but, he says, the drainfield site itself is not concave. Of course, the question is not whether a particular drainfield is itself concave, but whether it is located in “a concave portion of the landscape,” as this site is.

Mr. Emswiler says that he has visited the site during and after heavy rains and never has seen the proposed drainfield under water. He further offers a log showing water level measurements generally below thirty-two inches on the dates he did the measurements.<sup>5</sup> Mr. Swecker similarly relies upon the absence

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<sup>5</sup> Mr. Emswiler had not earlier shared these data with the Department. Even if the data are an accurate picture of the groundwater levels on the dates in question, they are far from sufficient to contradict the evidence of soils that these sites all are shallow to a

of water in the holes when he visited the site. That does not end the matter. Even if the board were to accept this anecdotal evidence to establish that the site is not flooded by surface water, the location in the drainage way assures that the soils will be periodically saturated by surface or subsurface flow down the watershed.

The soils confirm this last conclusion. They are dark, stratified, alluvial sediments, typical of a drainage way. The soil colors, the manganese coatings, and the snail shells confirm that the soils are relatively wet. Indeed, as both the Department and Mr. Cobb found, there is a seasonal water table at eighteen to twenty-four inches.

As Mr. Cobb explained, alkaline soils such as these often do not produce the gray mottles that typically indicate a seasonal water table. These soils nonetheless contain oxide coatings, stains, and concretions that also are characteristic of the reducing (anaerobic) conditions found in a seasonal water table. Mr. Cobb concludes that the soil wetness features beginning at about eighteen to twenty-three inches indicate that the soils are not suitable for a drainfield.

Interestingly, Mr. Swecker does not contradict Mr. Cobb's evidence of soil wetness features that indicate the soils are periodically wet. Instead he relies upon the absence of water in the holes when he was on the site during a very

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seasonal water table.

wet spring. The Board would not rely upon the temperatures of a few days in the Spring to describe the Harrisonburg climate, and it will not rely upon water level on a few days in Spring to describe the seasonal water table on these sites, particularly when the centuries-old record of the soils tells the full story.

These are the soils to be expected in a drainage way subject to periodic flooding; they are the very reason for rejecting such locations. Proper operation of a drainfield requires aerobic treatment of the effluent. When the effluent flows into flooded soils, such as a seasonal water table, it does not receive the proper treatment. Then, the partially treated effluent can move to groundwater, surface water, or directly onto the surface, creating the hazards discussed in the Department's Exhibit 14.

Under the Regulations, the seasonal water table removes any room for argument. The Regulations require a minimum eighteen inch trench depth.<sup>6</sup> The setback between the seasonal water table and the trench bottom depends upon the permeability of the soil. Here, all parties agree that the soils are Texture Group III or slower, *i.e.*, permeability > 45 min/in.<sup>7</sup> Thus the minimum distance from the trench bottom to the seasonal water table is twelve inches.<sup>8</sup>

To install a drainfield in these soils, the seasonal water table must be at least thirty inches below the surface. On the thirty-six acre site, the seasonal

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<sup>6</sup> 12 VAC 5-610-950.C.1

<sup>7</sup> 12 VAC 5-610-490.C.1

<sup>8</sup> 12 VAC 5-610-950.A.3

water table is generally at eighteen to twenty-four inches. Thus, the site is not suitable.

#### The Five Acre Parcel


The five-acre parcel is downstream of the thirty-six acre parcel on the same watershed, Linville Creek. From the photographs, the Board is inclined to agree with Mr. Cobb that these sites are on a little bench of flood plain soil in a fairly broad drainage way. The Department does not claim that the site is subject to annual flooding, but relies upon its view that the location and soils are not satisfactory. Mr. Emswiler again argues that both location and soils meet the requirements of the Regulations.

The Board need not resolve the question whether this is a drainage way or a flood plain. The soils are nearly identical to those on the thirty-six acre parcel, and they are unsatisfactory for the same reasons. In particular, the Department and Mr. Cobb found wetness feature beginning at about twenty-three inches. Thus, the soils lack the necessary depth to the seasonal water table.

#### **Conclusion**

Both of these sites fully justify the Department's rule of thumb, and the first consultant's application of that rule. The soils show the wetness features characteristic of drainage way soils, they are shallow to ground water, and they are plainly unsatisfactory to treat sewage effluent. Accordingly, Mr. Emswiler's appeal must be OVERRULED.

If Mr. Emswiler wishes to appeal this decision, he may initiate the appeal by filing a notice of appeal with the Board's acting Secretary, Mr. Gary Hagy, Division of Environmental Health Services, 1500 East Main Street, Richmond, Virginia 23219 within thirty-three days of the date of mailing of this order to him. Other requirements for perfecting an appeal are set out in Part 2A of the Rules of the Supreme Court of Virginia and in the Administrative Process Act.

  
Charles Hagedorn, III  
Vice-Chairman

Dated: November 2, 1998

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