

State of Vermont

Water Resources Board

Appeal of  
Robert and Anne Broderick  
Application EC-1-0711  
Town of Mendon, Vermont

Environmental Protection  
Rules §2-02 (E)  
Findings of Fact,  
Conclusions of Law and Order

Introduction

On April 11, 1984, the Vermont Water Resources Board issued an order denying that portion of this appeal which was based on procedural issues and directing that a hearing be held at 10:00 a.m. on April 18, 1984 at Montpelier, Vermont to consider the remaining matters (**substantive** issues) in this appeal. At that hearing the following parties entered their appearance:

- a) Robert and Anne Broderick, represented by Robert Broderick, Esquire
- b) Department of Water Resources and Environmental Engineering, Division of Protection represented by Dana Cole-Levesque, Esquire

During the course of this proceeding the following documents were received into evidence:

- Exhibit 1: An application for a subdivision permit on behalf of Andrew Broderick and Dillion Broderick by their guardians Robert and Anne Broderick with attached engineering site report and site plan prepared by Spencer Engineering, Inc.,
- Exhibit 2: A letter addressed to the applicants with attached certificate of noncompliance dated August 16, 1983 from Robert W. Black and David R. Swift on behalf of the Division of Protection.
- Exhibit 3: A letter addressed to Donald Robisky, Division of Protection dated September 26, 1983 from Robert Broderick.
- Exhibit 4: A letter addressed to Robert Broderick dated October 7, 1983 from Donald Robisky, Division of Protection with an enclosure of a memorandum prepared by Donald Robisky dated April 11, 1983.
- Exhibit 5: A letter addressed to Robert and Anne Broderick dated, July 1, 1983 from Sandra B. Wilson for the Department of Water Resources and Environmental Engineering.

Exhibit 6: A letter addressed to Robert Broderick dated October 20, 1983 from Robert Black, Division of Protection.

Exhibit 7: A letter addressed to John R. Ponsetto, Commissioner, Department of Water Resources dated December 8, 1983 from Robert Broderick.

Findings of Fact

1. On August 17, 1983, the Division of Protection denied the application of Andrew and Dillion Broderick by their guardians Robert and Anne Broderick. (hereinafter "Brodericks") for a change of deferral status on a one-lot subdivision, approximately 4.86 acres in size, located on Elbow Road in Mendon, Vermont. A certificate of noncompliance was issued and the application denied (exhibit 2) on the grounds that the lot did not meet three of the continuous area requirements:
  - (a) inadequate separation distance above the highest ground water level or impervious soil,
  - (b) inadequate separation distance from "bedrock".
  - (c) inadequate separation distance from excessive slopes.
2. The respective provisions of the Environmental Protection Rules (hereinafter **EPR**) on which the denial was based are §3-09(B) (4) (b), §3-09(B) (4) (c) and §3-09(B) (4) (e).
3. As part of their review of this application, representatives from the Division of Protection on July 28, 1983 observed soil excavations in the proposed sewage disposal area which indicated that seasonal high water table conditions existed. This determination was based on the evidence of soil mottling which is the most readily apparent and frequently relied upon indicator of drainage problems in soil.

Mottles are characterized as irregularly marked spots of color located within soil horizons and form when soils undergo alternating periods of prolonged water saturation and drying. The observance of mottling in the soils on the site was noted at depths ranging from 15 to 24 inches below the ground surface.
4. Section 3-09(B) (4) (b) of the **EPR** establishes two criteria which must be satisfied. The first criteria is that there be at least a five foot separation distance above impervious soil. The term "impervious soil" for the purposes of this provision of the **EPR** is synonymous, with

**"impervious**

**(§3-09(B)(2)(c))** as "any ground condition, **or** soil material, wherein the percolation rate exceeds 60 minutes per inch."

5. The Broderick's application (exhibit 1) included a site report prepared by a professional **engineer** registered to practice in the State of Vermont. This report indicated, **that** the lot in question complied with this requirement. **Specifically** the engineering site report gives the results of six percolation tests which consistently indicated percolation rates well below 60 minutes per inch. The Division of Protection did not evaluate soil conditions on the lot by conducting its own percolation tests nor did it **require additional** tests by the applicant's engineer prior to issuing its denial.
6. Subsequent to its denial of the application, the Division of Protection has determined that the results of the six percolation tests which it considered in reaching the decision under appeal are invalid because they **were** not conducted in the manner required by Appendix 7-C' 1(a).
7. Section 3-09(B) (4) (c) requires at least a six foot soil cover over bedrock. Bedrock is defined **(§3-09(B) (2) (c))** to include "in addition to the solid, impervious ledge, the **zone of broken, loose or shabby rock (weathered zone)** that provides a moderate to high rate of percolation rate but little or no treatment of sewage effluent.'

The site report portion of the **Broderick's** application (exhibit 1) indicated that the lot 'in question complied with this requirement. Specifically, the site report contains the results of four test pits which consistently indicated soil cover in excess of **six feet** in depth. The testimony of Robert Black **on behalf** of the Division of Protection agreed with the applicant on this point.

The lot in question **is** characterized as having an overall ground slope of approximately **20%**, with areas of much steeper slope as well as terraces where the slope **is in** the range **10-15%**.

Section **3-09(B) (4) (e)** requires that sewage disposal systems must comply with various isolation distance requirements set **forth in** Appendix 7-D. One of the minimum isolation distances established in this Appendix is that the disposal field must be 25 feet from the top of an embankment or a slope greater than 20%. This distance is 'measured from the top of the embankment or "break in slope" to the nearest point of any absorption trench.

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1. The site plan which was **included** in the Broderick application (exhibit 1) shows the proposed location of the absorption trench for the replacement area as being **approximately** 10 feet from the top of an embankment **with** a slope well in excess of 20%.

#### Conclusions of Law

- The lot in question has **not been** shown to comply with the requirement of having at least five feet of soil above the highest ground water level as required by EPR, section 3-09(B) (4) (b). Finding 3.
- As of August 17, 1983 the date of the Division of Protection denial, **the site report** submitted with the Broderick application was sufficient to show that the lot complied with the requirement of having at least **five** feet of soil above **any impervious** soil as **required by** EPR, section 3-09(B) (4) (b). However, information obtained subsequent to **the Division** of Protection denial is sufficient for this Board to conclude **that the** Broderick's have not met their burden to show that this **requirement** has been satisfied. Findings 4, 5 and 6.
- The lot in question has been **shown to** have a continuous area which complies with the requirement of having at **least** six feet of soil cover over bedrock as required by **EPR**, section 3-09(B) (4) (c). Findings 7 and 8.
- The lot in question has not been **shown** to have a continuous area which complies with, the minimum isolation distance of 25 feet between the disposal field and either the top of an embankment or slope greater than 20% as required by EPR, section 3-09(B) (4) (e) and Appendix 7-D.
- The basis for the denial of this application provided by the Division of Protection (exhibit 2) although incorrectly cited as "section 3.09(b-4-c)" clearly indicated the **basis for denial**. (should this point be discussed in the Findings, see Finding #2)
- The lot in question does not comply with Section 3-09(B) (4) (b) and (e) of the EPR.

To the extent they are not incorporated in the foregoing, **all Findings of Fact and Conclusions of Law prepared by the parties are hereby denied.**

#### ORDER

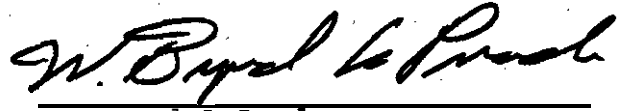
On the basis of the above conclusions of law, the decision of the **Division** of Protection dated August 16, 1983 to deny the

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Broderick application for a one lot subdivision in the Town of Mendon, Vermont is therefore upheld and the appeal is denied.

Done this 29th day of May '1984 at Montpelier, Vermont.

  
William D. Countryman

  
W. Byrd LaPrade

  
William Boyd Davies