



Environmental Appeal Board

APPEAL NO. 95/34 - HEALTH

In the matter of an appeal under s. 5 of the *Health Act*, R.S.B.C. 1979, C. 161

BETWEEN:	Chris Buchan	APPELLANT
AND:	Environmental Health Officer	RESPONDENT
AND:	Chislett, Manson and Company	PERMIT HOLDER
BEFORE:	A Panel of the Environmental Appeal Board Carol Martin, Chair	
DATE OF HEARING:	April 3, 1996	
PLACE OF HEARING:	Courtenay, B.C.	
APPEARING:	For Appellant:	Chris Buchan
	For Respondent:	David Cherry
	For Permit Holder:	John Manson

This was an appeal against the November 10, 1995 decision of the Environmental Health Officer to issue a permit for an on-site Sewage Disposal System for Lot 2, Section 27, Township 9, Plan VIP 55092, Comox District.

APPEAL

The authority for the Panel of the Environmental Appeal Board to hear this appeal is found in the *Health Act*, section 5(3)(a), and in the *Environmental Management Act*, section 11.

The order sought by the Appellant is that the sewage disposal permit issued by the Environmental Health Officer to Chislett, Manson and Company on behalf of Fu Lin Sawmills, be overturned until a thorough site re-inspection can be undertaken to ensure that the groundwater will not be contaminated.

BACKGROUND

The property in question is an 8 hectare (20 acre parcel) located along Wildwood Road near Courtenay, B.C. The majority of the lot consists of forest and wetland and is adjacent to Burns Marsh, a recognized wildlife area which provides winter habitat for many birds including trumpeter swans. The Regional District of Comox/Strathcona has recognized the marsh in its Sensitive Habitat Atlas. Also

along Wildwood Road are several residential lots, many with homes using shallow wells as their only fresh water source.

In October 1992, a sewage disposal permit for a 300 gallon septic tank with a 192 ft. disposal field was approved by a Public Health Officer for a residence on Lot 2. This original sewage disposal permit was issued for a three bedroom house, following percolation tests conducted by the then owner in September of the same year. In November 1995, the current Permit Holder submitted an "Application for a Permit to Construct or Repair a Sewage Disposal System" for the subject lot on Wildwood Road with the proposal to change the use of the house to an office for a proposed sawmill with 30 employees. The new permit which was issued on December 13, 1995 allows for no more than 300 gallons of sewage per day and has been calculated at 20 gallons of water per day for an office worker and 10 gallons for a factory shift worker, assuming no showers or laundry facilities are provided.

In January of 1995, the Appellant on behalf of the Wildwood Watershed Society launched an appeal against the issuance of the permit to use the existing residential sewage disposal system, somewhat upgraded, for the proposed sawmill.

GROUND'S FOR APPEAL

The Appellant's grounds for appeal, as submitted to the Panel were:

- The site proposed for the sawmill is of an extremely wet nature and the groundwater level and water table levels are high;
- There are "inconsistencies" in the original 1992 sewage disposal permit regarding depth to hardpan (quoted as 8 feet), percolation rates and the lack of a requirement for a raised absorption field as was required for other properties in the area;
- There are "inconsistencies" in the November 1995 application to alter the existing sewage disposal system specifically with regard to the maximum estimated daily sewage needs for the proposed mill and the actual number of anticipated employees, as well as the lack of the inclusion (with the application) of any site plan showing surface water;
- As there are several shallow wells nearby used for residential drinking water, (the nearest being 300 ft.) malfunction of the system could present a health hazard to those families using the wells;
- The existing field may already have been malfunctioning, as exemplified by the Health Officer's field notes as noted in his diary "D-Box (Distribution box) full and standing water in the area;"
- Insufficient information was submitted with the earlier 1992 application and the 1995 permit approval reflected this as it did not require that the percolation tests be re-conducted.

APPLICABLE LEGISLATION, REGULATIONS AND POLICY

Sections of the *Health Act* regulations and Health ministry policy relevant to this appeal and the issues surrounding it are as follows:

SEWAGE DISPOSAL REGULATIONS (B.C. Reg. 411/85)**Section 2(2): Sewage from Buildings**

Except as relieved by an authorization issued under section 4(1) or by the terms of a permit issued under B.C. Reg. 577/75, it is the duty of the owner or occupier of every building to ensure that domestic sewage emanating from the building does not reach the surface of land or discharge into a surface body of fresh water.

Section 3: Permits to Construct Systems

(1) No person shall construct, install, alter or repair a sewage disposal system unless he holds a permit under this section.

(2) Application for a permit must be made in a manner and form satisfactory to the Ministry of Health with all relevant details completed by the applicant.... [and]...

SCHEDULE 1 (Site Investigation)**Section 1.**

The obligations on an owner before applying for a permit to construct or install under section 3(2) are:

- (a) determination of the subsurface ground conditions in the area...
- (b) determination of the suitability of the soil to absorb effluent by conducting percolation tests as follows:
 - (i) percolation test holes must be made at points and elevations selected as typical in the area of the proposed absorption field;
 - (ii) test holes must be dug at each end of the area of the absorption field. Further holes may be required, depending upon the nature of the soil,

Section 2.

The ground water table shall be determined as follows:

- (b) Where the ground water table is not affected by infiltration from a body of surface water as described in paragraph (a), the ground

water table shall be the average of the 2 maximum recorded seasonal ground water tables in the 24 month period immediately prior to the date of application. The records considered for this calculation shall be those acceptable to the medical health officer...

(c) In situations where

(i) no records are available, or

(ii) there is a probability of flooding or a high water table, the medical health officer. may determine the ground water table.

Section 3.

(1) The applicant for a permit shall report the results of all determinations made under this schedule in a manner and form satisfactory to the Ministry of Health.

(2) If the results reported under subsection (1) are unable to satisfy the medical health officer that the quality of the surface water and ground water will not be impaired, the medical health officer may require that alternative or additional tests be carried out by or on behalf of the applicant for a permit, so as to ensure that proper surface and ground water quality will be maintained.

SCHEDULE 2 (Conventional Septic Tank Systems)

Section 1. Septic tank systems are limited to lots where an impervious layer of soil or bedrock, or the ground water table, is greater than 1.2 m (4 ft) below the ground before it has been artificially disturbed by placement of fill, excavation or otherwise....

B.C. MINISTRY OF HEALTH POLICY: ON-SITE SEWAGE DISPOSAL POLICY

Chapter 3, APPLICATION FOR A PERMIT

3.2 (re high water table) The ...Health Inspector, in exercising his discretion to determine the groundwater table, should consider the following factors:

(a) prolonged testing and monitoring- the actual/real high water mark can only be recorded during the wet period of the year...

3.5 Changes in System (from section 5 of the Regs.)

"...The grant of a permit under section 3 or an authorization under section 4 does not operate as a relief on a person from the obligation to construct, install, alter, repair or use a sewage disposal system in accordance with the Act and the standards set out in the regulation."

(From Ministry Policy) "An application to add or alter a building shall include evidence that the sewage disposal system shall accommodate the proposed changes. The owner must produce a record of final inspection of the original system or subsequent system(s). If this is not available *or appears to be inaccurate, the Environmental Health Officer may require the owner to expose the system....*" [emphasis added]

THE ARGUMENTS

The Appellant's Submission:

At the hearing the Appellant, Chris Buchan, representing the Wildwood Watershed Society, maintained that the original permit for a residential sewage disposal system for Lot 2 had been wrongly issued due to insufficient or incorrect information having been supplied at the time of application for the permit. In particular he maintained that the required percolation tests were done in September after the summer dry period and that these tests should have been conducted during the wettest time of the year. He also pointed out that because of the general wet nature of the entire area, each of the neighbours had been required to build raised disposal fields.

The Appellant presented December 1995 photographs taken of the area around the subject disposal field. They show standing water and general marshiness in the area around the absorption field. Photos of the open "Distribution Box" show a "tideline" where, in his interpretation, effluent from the septic tank had risen above the outlet holes. The Appellant maintained that this could indicate that at times the system had not been draining properly, probably because of wet ground in the area or from the periodic high water table.

The Appellant also maintained that the permit to alter or repair the old system to a sewage disposal system for an industrial use of 30 or more employees was questionable because it relied on information that had been submitted by a "non-expert" owner in an application some time earlier. He submitted that a better review of the soil's ability to absorb the effluent should be carried out, especially in light of the fact that the use was changing and all of the neighbours were using shallow wells as their only supply of potable water.

The Appellant submitted the diary entry of the Environmental Health Officer, Dave Cherry, dated December 12, 1995, in which Mr. Cherry notes that the "D-box was full and surface water in the area." Several other documents, including several of the neighbours' own sewage disposal permits requiring raised fields, were submitted to the Panel by the Appellant to substantiate his position that the location of the proposed sewage system was such that it could pose a threat to either or both groundwater quality or wildlife habitat in the surrounding area.

The Appellant also presented a report from Mr. John Hillis, of Island Onsite Systems. In the report, Mr. Hillis, a former health officer, stated that according to Ministry of Health Policy, the system should have been exposed and the tank

pumped out if the Environmental Health Officer noticed signs of a saturated disposal field, as his field notes indicated. He further recommends that there should be an optimum 2 foot vertical separation between the bottom of the disposal trench and the high groundwater level.

The Appellant concluded by asking that the permit be quashed, that the site be re-inspected and that soil capability and percolation rate be reassessed to ensure that the groundwater in the area will not be detrimentally affected.

The Respondent's Submission:

The Spokesperson for the Respondent, Dave Cherry, the Environmental Health Officer for the Upper Island Health Unit, stated that in his view all required procedures had been followed for the application to upgrade the system and that the appeal was only being used to delay the proposed sawmill which the neighbours were opposed to for reasons other than a concern for sewage. He noted that the photos presented by the Appellant may have been taken from a distance that was greater than 100 feet from the disposal field.

Mr. Cherry assured the panel that the field was the required 100 feet from any water supply and 50 feet from any break-out point such as a drainage ditch. He said that when he visited the site, he could neither see nor smell sewage and that water around the field was likely from recent rains. Mr. Cherry seemed satisfied with a new tank that had been installed and noted that site drainage around the sawmill site was proposed as an integral part of the permit, sending any run-off from the mill site into the ditch along Wildwood Road.

Mr. Cherry pointed out that there is no proposed increase in sewage flow and that the existing field will accommodate the projected number of employees as calculated under current regulations. Any future expansions would require an expanded sewage disposal system under a new permit.

The Permit Holder's Submission

John Manson of Chisleth, Manson and Company, represented the Permit Holders and described their application to alter the existing field on the proposed sawmill site. Mr. Manson submitted that the proposed sewage disposal system will be used for regular sewage only, that there will not be any industrial discharges into the system and that the permit is for a maximum of 300 gallons per day. He stated that he believed that it would be physically impossible for three feet of water to pond in the vicinity of the field as the Appellant had submitted. The proposed drainage system for the plant would ensure that the field area would be higher than the surrounding area.

The Permit Holder submitted additional information regarding the soil's capability from a building foundation point of view, rather than from a sewage disposal perspective. They had hired Levelton Assoc. to do a geotechnical investigation regarding the soils on the proposed new mill building site. The test pit results,

dated September 1995, showed a few holes with water in them at about 1.6 m. But none were located in the area of the disposal field.

ISSUES AND DISCUSSION

The Appellant contends that because of the wet nature of the site, the Environmental Health Officer could not be certain that the system as approved would not at some future time malfunction creating a threat to human health through contamination of the groundwater. The Appellant, therefore, requested that a thorough re-inspection of the disposal field site be undertaken to ensure that the land can safely accommodate the volume of sewage proposed. Schedule 1 of the Sewage Disposal Regulations does address the need, in such situations, for wet season monitoring of the water table (averaged over 24 months). The Appellant is concerned that insufficient or erroneous information provided the basis for the original residential permit issued for Lot 2 and are even more concerned that if an industrial enterprise is established on the site it could later expand without either their or Ministry staff's knowledge.

The Respondent, Mr. Cherry, alternatively has relied on the fact that there was an approved sewage disposal system with a disposal field for a residence on the site, that the system did not appear to be malfunctioning and that the water table did not appear to be too high when he inspected the site (notwithstanding his diary entry regarding the D-box being full and surface water was noticeable in the area.). He said he could neither see nor smell sewage and that water around the field was likely from recent rains. Mr. Cherry seemed satisfied with a new additional tank having been installed and noted that site drainage was an integral part of the permit, sending any runoff from the site into the ditch along Wildwood Road. He stated that the Ministry's jurisdiction ends at the 100 foot line.

The key issue here is whether, under the permit as approved, there is sufficient reason for the Environmental Health Officer to be concerned about public health and environmental degradation. It must be asked whether the Environmental Health Officer had sufficient information before him, particularly about seasonal high water table levels, to satisfy himself that there would be no risk to public health.

The panel understands that the EHO considered, or should have considered, a number of factors as required under the existing regulations:

- the number of gallons per day of effluent estimated to be generated by the proposed mill that would enter the existing sewage system as approved in 1992 for a single-family residence, even with a new tank,
- the distance from any water supply and/or breakout points,
- whether the existing residential field had been functioning satisfactorily, especially since he had expressed concerns about the D-box being full and the existence of water standing in the area,
- the correctness of the information given in the earlier application,

- whether the water standing in the field area was from recent rainfall or an indication of a high seasonal water table, and
- whether the earlier perc tests and measurements to the water table, taken in September, provided sufficient information for the EHO to be able to issue a permit for the change in use without opening and examining the system, or pumping it out.

The panel also appreciates the concerns raised by the Appellant regarding the fact that the information provided on the earlier permit was not corroborated by any expert information, and that the "8 feet to the water table" as written on the 1992 application, even in September, seems to require some form of confirmation.

DECISION

In making this decision, the Panel of the Environmental Appeal Board has carefully considered all of the relevant documented evidence and all comments made during the hearing, whether or not they have been specifically reiterated here.

One of the purposes of the *Health Act* is to ensure that sewage systems are "adequately designed and protected to eliminate the risk of a health hazard resulting from sewage." Section 3(4)(e) of the Sewage Disposal Regulations sets out that even for repairs or alteration of an existing system, the standards for the appropriate sewage disposal system as required by the regulations must be complied with as a condition of the permit. It further requires that all relevant facts must be disclosed in the application and that the grantor of the permit may impose conditions additional to those set out in Subsection 3(4). Section 3(2) of Schedule 1 of the Regulations also provides that the EHO may require additional testing.

After reviewing the evidence presented at the hearing and all of the relevant legislation, the Panel remains unconvinced that an adequate site investigation was made by the EHO for this application or that sufficient information about the nature of the disposal field area was available to him, particularly with regard to percability of the soil and the watertable level in the wet season. Doubt remains regarding the state of the system itself, given his noted observations of the "D-box" and standing water during a site visit. The Panel agrees that the EHO could not have been sufficiently satisfied that there would never be any threat to public health or to the environment.

Also the Panel is aware that there is a provision for the EHO to have requested that the system be exposed for inspection but that that was not done.

It is the view of this Panel, therefore, that the EHO should have had more information about the depth to water table in the wettest months, and confirmation of the quality and percability of the soils in order to be satisfied that the sewage to be disposed of under this permit will not become a threat to the health of the public or to the environment.

The Panel of the Environmental Appeal Board therefore has decided that the sewage disposal permit issued for Lot 2 on Wildwood Road, Courtenay B.C., on December 14, 1995, is cancelled and that the applicants should, if they wish to proceed, reapply, undertaking all the usual tests and procedures required of a new application, including proof of adequate depth to the water table, showing that satisfactory undisturbed receiving soils of the necessary depth and quality exist such that no effluent could travel into nearby surface water or into the groundwater table.

Carol Martin, Panel Chair
Environmental Appeal Board

July 3, 1996