

18th November, 2004.

Mr. Andrew Bone,
Planner I.
Halifax Regional Municipality,
P.O. Box 1749, Halifax,
Nova Scotia, B3J 3A5

Dear Mr. Bone: Re Case 00431 - Lands of L. Archibald in Waverley PID#00527119

This letter is written in response to the presentation by yourself and Mr. C. MacCauley to the Halifax Watershed Advisory Board on Wednesday, 20th October 2004, on the proposal for the lands of L. Archibald in Waverley. The Board appreciates the opportunity to comment on this proposal at the concept stage. As you know, the chief concern of the Board is the protection of the watershed and the natural environment. In this instance, the Board has particular concerns with the cumulative effect of development on the many watercourses and waterbodies in the area, specifically the three lakes: Rocky Lake, Powder Mill Lake and Lake William. These comprise part of the headwaters of the Shubenacadie Lakes system which is used by both private and public users as a source of drinking water, as well as for recreation.

In developing the Board's recommendations, we have assumed that the Nova Scotia Department of the Environment and Labour (NSDE&L) has assessed the environmental quality of this site related to the historical industrial uses and has approved, or will approve, these lands as a residential area.

The Board recommends that the following matters be addressed in the planning process for this site.

1. All three of the lakes in the area will be receiving the effluent from on-site septic systems, and the Board feels that emphasis should be placed on water quality protection. We recommend that receiving waters studies be undertaken to establish the current water quality of Lake William, Powder Mill Lake and Rocky Lake. Each of the lakes should be tested for total phosphorous, total nitrogen, chlorophyll a, and by Secchi disk on a monthly basis from October to June and bi-weekly from July to September for one year. They should also be undergo the full slate of RCap testing either in the late fall or early spring as part of the baseline data collection and evaluation.
2. The Board has a major concern about the effect of phosphorous on waterbodies. Thus, in February 2001, the Board established, in its guidelines, a requirement for a set-back for septic systems of 100 metres from the shoreline, for new residential developments. We recommend that this guideline be observed in the development of

this site. This requirement may result in a need for consideration of cluster septic treatment and/or pumping of sewage.

3. The Board would like to have an opportunity to provide comments and recommendations on the nature and location of all septic systems - both individual and cluster systems - proposed for the site.
4. The Board recommends that the standard 20 metre buffer strip of undisturbed vegetation be maintained around all watercourses.
5. The substrate in the area appears to be highly fractured and/or consist of large glacial rubble which could result in rapid infiltration. The homes in this development will have on-site septic systems, thus rapid septic effluent infiltration into the groundwater could occur. The Board recommends that a hydrogeological survey of the site be conducted prior to development to ensure that appropriate septic systems are incorporated into the development plan.
6. The impact of the increased stormwater run-off from paved and other impervious surfaces is always of concern to the Board. We recommend that every effort be made to facilitate the infiltration of stormwater on site and to 'polish' the run-off before it reaches the lakes. We also recommend that design features be incorporated into the stormwater management system in order to mitigate peak flows from storm events.
7. The Board recommends the installation of 3-sided culverts to allow for fish passage at all road crossings of streams which are fish habitat or migration routes. The crossing of the main connector road over the brook between Rocky Lake and Powder Mill Lake needs special consideration.
8. The road and lot layout should also allow for the conservation of wetlands. The wetland on Powder Mill Lake adjacent to Rocky Lake Drive, and the wetland associated with the lagoon flowing into, and west of, Lake William are of particular concern.

If the concept proposal for this site is approved, the Board would appreciate an opportunity to provide comment and recommendations on the detailed development plans, including the stormwater management plan. Associated with subsequent review and recommendations development, we would like to see a 1:2,000 map of the site, showing both the wetlands which need to be protected, and the steep slopes - which are of interest in connection with the proposed use of septic systems.

Wayne Stobo
Chairman, HWAB