

*A lake is the landscape's most beautiful and expressive feature. It is the earth's eye; looking into which the beholder measures the depth of his own nature.*

..... Walden-- Henry David Thoreau

## **Soil & Water Conservation Society of Metro Halifax ('SWCSMH')**

*(a volunteer scientific stakeholder-group)*

310-4 Lakefront Road, Dartmouth, NS, Canada B2Y 3C4

Email: [limnos@chebucto.ns.ca](mailto:limnos@chebucto.ns.ca) Tel: (902) 463-7777

Homepage: <http://www.chebucto.ns.ca/Science/SWCS/SWCS.html>

---

**Ref.:** WAB0025 (total= 3 pages)  
**To:** Chairman Dr. Wayne Stobo and Members,  
Halifax/Halifax County Watershed Advisory Board (WAB), HRM  
**From:** S. M. Mandaville (Professional Lake Manage.), Chairman & Exec. Director  
**Date:** October 18, 00  
**Subject:** **Glen Arbour- October 2000 agenda- Item 3.7**

---

Further to discussions at the Board meetings of July and September 2000, I had noted 3 specific points that should be addressed in the letter to HRM which would cover almost every member's concerns. **This is only a draft, and hence please only treat it so!** For clarity purposes, it will be in a overall 3-point format as promised during our September 00 Board meeting and as brief as possible without losing the scientific essence.

1. Preamble: Our Board in 1996, titled as the Halifax County Watershed Advisory Board, after lengthy discussions and investigations above and beyond our monthly meetings during the entire summer of 1996, decided in a sampling protocol, both **chemical** as well as **biological**. This protocol was derived from handbooks developed by world authorities, basically from the peer-consensus OECD (Organisation for Economic Co-Operation and Development) which were indeed headed by leading scientists from Environment Canada (Vollenweider and Kerekes), as well as from the Canadian Federal DFO/Environment Canada Protocols for Measuring Biodiversity in Fresh Waters: Benthic Macroinvertebrates. Hence, we emphatically state here that our recommendations did not accrue as a result of off-the-cuff opinions of any of the members, but were indeed based on published science!

It is with deep regret we state that the HRM staff altered our recommendations **radically** without even referring the changes back to us, and a vastly watered-down contract was made with the developers, the Annapolis Basin Group. If this was a minor development, it may not have mattered. This development consisted of a world-class golf course as claimed by the developers themselves together with extensive lots serviced by onsite systems.

Especially one of the lakes, Sandy, was in an almost pristine area, hence, the science of lakes implies that Sandy was quite sensitive to even small additions of various pollutants!

- 1.1. Briefly, we requested for monthly sampling of just three parameters, total phosphorus (TP), chlorophyll a (Cha) and total nitrogen (TN). This was not implemented as these variables were measured only on a seasonal basis.
- 1.2. We requested for characterization of the species of benthos present in each of the three lakes, and this was not carried out at all.
- 1.3. We further requested that a suitable sedentary organism (freshwater clam, mussel or non-migratory fish) be sampled in each lake for mercury. While mercury containing fungicides may no longer be registered for use in golf courses in Canada, nevertheless, there is information which leads us to believe that some golf courses may be using them because of the back supplies. Notwithstanding, there are other toxicity data which can accrue from this sampling. This was not carried out at all either.

2. It was decided at our September 00 meeting to the following effect:
  - 2.1. That HRM employ the services of an independent Limnologist/Biologist to conduct an arm's length study of Sandy Lake (i.e., arm's length from the developer). If it is confirmed that Sandy Lake has elevated levels of specifically total phosphorus (TP) and chlorophyll a (Cha) as compared to the 1996 values, then the said Sandy Lake be **restored to approximately the numerical values of the TP and Cha** as existed in 1996 prior to the development. The pre-development values were supplied by the developer to the HRM under the terms of their contract. The entire cost of the restoration is to be met by the developer and not borne by the HRM.
  
3. We herewith humbly state that even with the above action, there is no guarantee that irreparable harm has not been inflicted to the Biodiversity of the almost pristine Sandy Lake as measured by the Benthic Macroinvertebrates.