Background Paper on Impacts of Pyritic Slate Disposal within HRM

Prepared by Norval Collins, MCIP, LPP on behalf of the Environmental Services Association of Nova Scotia

Forty-two diverse stakeholders met at Acadia University on October 31, 2014 to discuss disposal of pyritic slates within HRM[1]. Participants included planners and engineers, geologists, members of environmental groups, and developers.

Most workshop participants agreed that lack of harbour disposal sites will change development within Halifax, particularly in the downtown area. Current regulations make notification and proper disposal the responsibility of the land owner (developer). One likely option is for developers to ask for increased height if digging into the bedrock becomes prohibitively expensive – underground parking may no longer be considered. Alternatives in the short term include delaying development entirely depending on the bedrock at the site.

As recent disposal options for pyritic slates disappear, new ones are not on the horizon. Currently Kings Wharf and expansion of the Fairview Cove Container Pier are designated as disposal sites under the Sulphide Bearing Material Disposal Regulations, but the room for pyritic slate is limited. Infill at the Bedford Waterfront has ended. New sites have not been identified and even if small sites appear on an *ad hoc* basis, they may not dispel concern. The current uncertainty is affecting developers and their willingness to invest in problem areas will decrease exponentially.

Some participants felt that perhaps the time for harbour infill is past – even though shoreline area is extensive, they felt a limit to infill in the harbour and basin may have been reached. An analysis of fish habitat and its relation to production and infilling has not been published. Is it appropriate to determine what is an acceptable habitat impact through a parcel by parcel review?

Review of disposal options should include recreational facilities, such as a large marina. At the moment, on-site land-based options are only economic at a relatively small scale, but a large-scale site could possibly be developed at a closed gypsum mine. In Halifax Harbour, it is time for a comprehensive review, including identification of productive fish habitat, ecological functioning, and harbour-based transportation and recreational options. The review process could include identification of research opportunities, including potential new local industry.

If harbour infill has reached its limit, perhaps its time to consider a climate change project. Rather than infilling within the inner harbour, a living breakwater could be constructed in the outer harbour to reduce the damage from more frequent and larger storms coupled with sea level rise. Such a project would showcase Halifax and Nova

[1] An Information Report on the Pyritic Slate Process for HRM Property was prepared by HRM staff on October 6, 2011. This paper is now considered out of date.

Scotia as forward thinking and capable of state-of-the-art marine environmental engineering.

Since trucking costs are a major component of disposal costs, alternatives need to be close by – for example, an option in New Brunswick is of little value to Halifax. The need is for a long-term, comprehensive plan for disposal of pyritic slates, but the problem is also immediate. Action is necessary to generate support at the municipal and provincial levels.

Recommendations from the workshop:

1. Publicize the magnitude and immediacy of the problem with disposal of pyritic slates – the problem is widespread, e.g., recent problems extend as far as Lunenburg County, but the biggest impact will be in downtown Halifax;
2. Clarify the costs for hauling, the anticipated quantities at typical downtown Halifax sites, and the tipping fee for the material – factors affecting costs, such as barge disposal, need to be included;
3. Identify existing and short-term disposal sites, possibly including a closed gypsum mine;
4. Review the Nova Scotia Sulphide Bearing Material Disposal Regulations [N.S. Reg. 57/95), which are now 20 years old and would benefit from a review of options and separation of guidelines and regulations; and,
5. Support research into disposal options to identify acceptable solutions and support regulation revision.