

December 5, 2017

**Attention: Mr. Shayne Vipond Planner III, RURAL POLICY AND APPLICATIONS, CURRENT PLANNING**

HRM Planning Applications  
PO Box 1749  
Halifax, Nova Scotia  
B3J 3A5 Canada

Dear Mr. Vipond,

**Reference: Case 20929 - Proposed Highway Commercial/ Residential Development (Wetlands Application # 2017-110980)**

I am writing in response to the application by W.M. Fares Ltd. for a development agreement to permit a Highway Commercial/ Residential Development on lands identified as PID 40057499, at Peggy's Cove Road and the Tantallon Crossroads in Upper Tantallon. I am a civil engineer specializing in geotechnical engineering in practice for 39 years. I have extensive knowledge and experience with land development in Atlantic Canada and particularly in HRM. I have consulted on all aspects of geotechnical issues concerning land development including but not limited to drainage and groundwater. My career has been largely based on sustainable land development for a large number of clients.

To be clear, I have no objection to reasonable development of the proposed site on Peggy's Cove Road but I consider even the first phase of the proposal, by W. M. Fares which is many times larger than the density recommended in the recent development bylaws to be grossly out of scale both according to the bylaws and from a technical perspective. In my opinion this development would unreasonably and unfairly tax the resources of the area and affect the surrounding residents, even ignoring aesthetic objections.

The proposal includes replacement of a natural wetland with a commercial development and parking lot. Wetlands provide water purification, flood protection, shoreline stabilization, storm water capture/storage, and streamflow maintenance. Wetlands also provide habitat for fish and wildlife, often including endangered species. Although wetlands are protected in Nova Scotia the present provincial environmental regulations, in some cases, allow for a development proponent to excavate a wetland if compensation is made by cash or by replacing the wetland in another location. The problem here is that Tantallon and Saint Margaret's Bay loses the benefits of the existing feature.

Head Harbour, the adjacent water body to the west into which the wetlands discharges, is used for recreational purposes: swimming, fishing, boating, etc. The wetland on the property in question acts as a buffer to filter pollutants from rapidly growing urban development at the Tantallon Cross Roads and prevents them from reaching Head Harbour.

Wetlands hold water, and are an important part of the surface water and groundwater systems, including water purification and streamflow maintenance. Parking lots and buildings have the opposite effect, by shedding water and contaminants, and reducing recharge of the groundwater.

Pump tests performed while the wetland is in place are unlikely to be valid for modeling to determine groundwater quantity or quality after the wetland is altered unless appropriate corrections are made. Further, the development proposal describes a sewage treatment plant that would discharge into Head Harbour. This will ensure that a large quantity of domestic water is not returned to the ground, as it is with onsite sewage disposal systems, and will increase the risk of accidental discharge of sewage into Head Harbour. Drawing down the water table near the ocean causes the salt water to be drawn up from below and even if the resource is not completely dried out, the salt water will intrude into the former fresh water regime. Excessive pumping will affect all wells in the vicinity on the same aquifer in addition to the wells that are being excessively pumped.

Preliminary water balance calculations conducted and critically reviewed by professional hydrogeologists predict that the local and regional aquifer will be depleted and possibly exhausted by the proposed development damaging the resource for the existing users and precluding further development in the area by other projects, including those designed within the bylaws.

Further, the proposed sewage treatment plant is to be located very close to the water, within the environmental buffer zone. This is an important non-conformance especially when one considers that even a small onsite sewage disposal system would not be allowed within 100 feet of the shoreline. Based on the available information, even the first phase of the proposed development will require a large quantity of water, and it will affect the groundwater table which is depended upon by surrounding residents and existing businesses.

Respectfully,



c./ Mr. Matt Whitman, HRM Councillor District 13

Mr. Hugh Mackay, MLA Chester - St. Margaret's

Ms. Sherri Kasten, Nova Scotia Environment